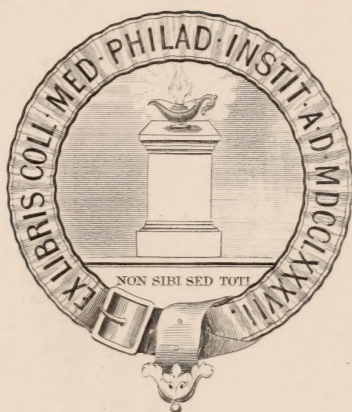
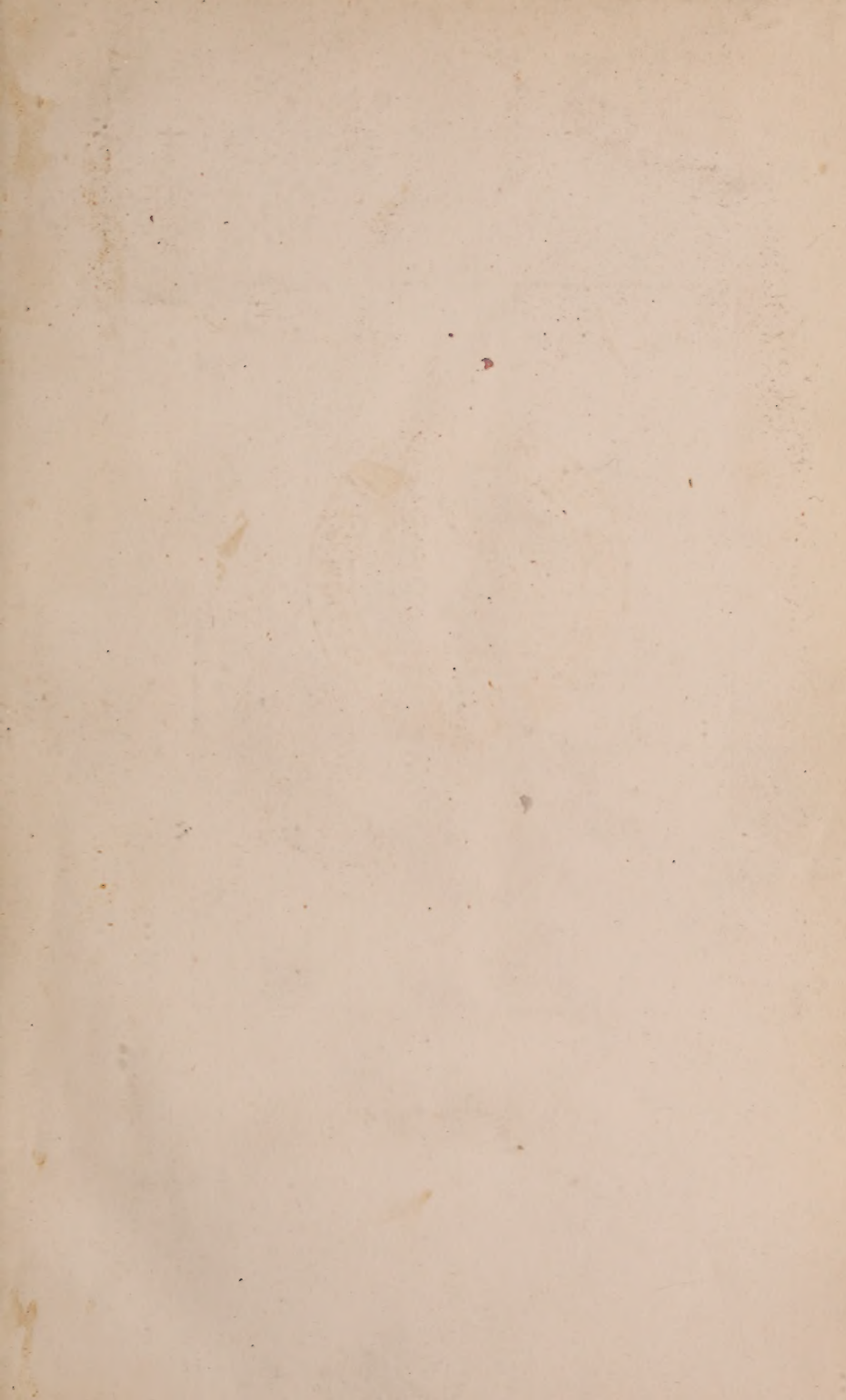




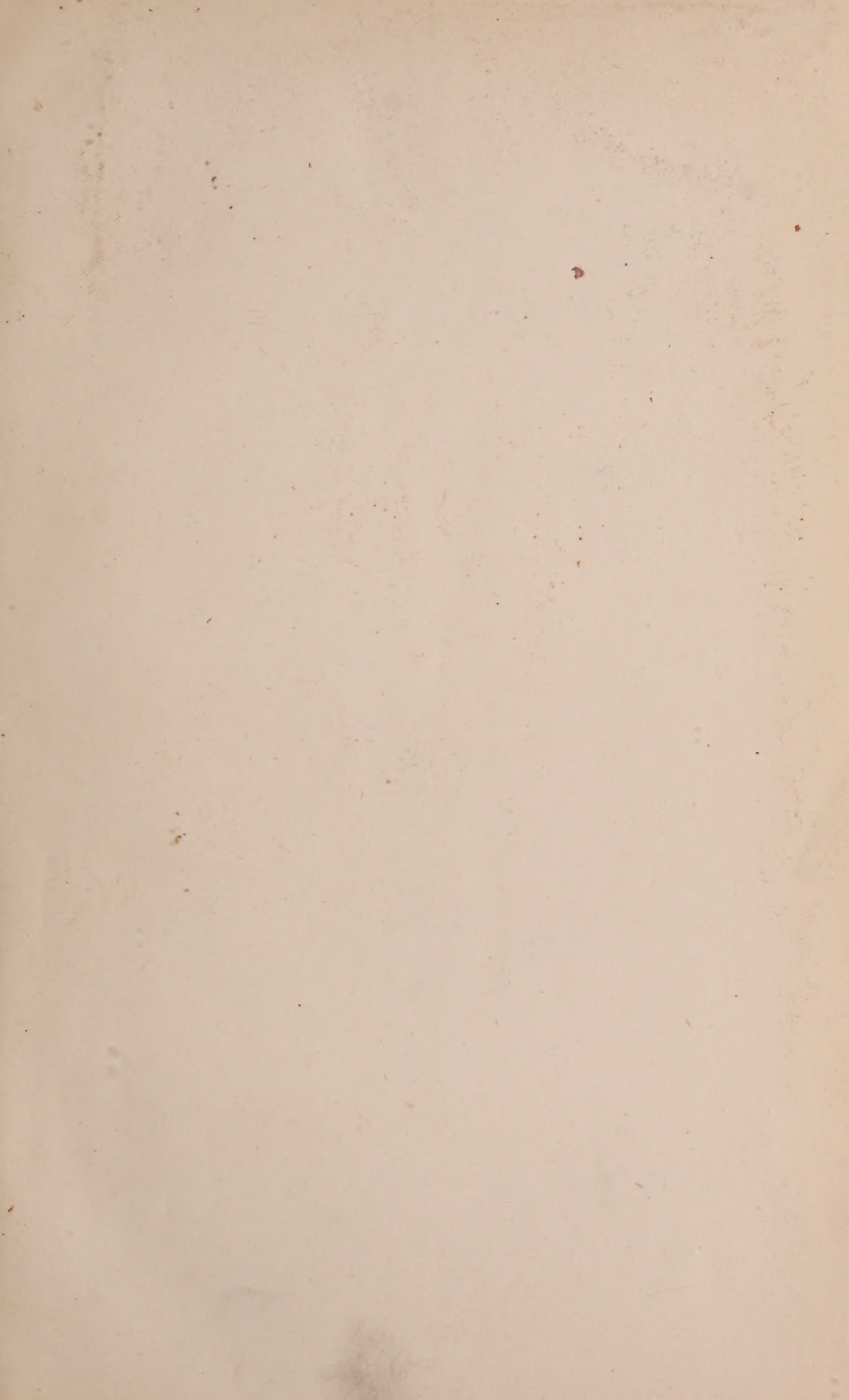
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Original Communications.

DROPSY OF THE AMNION.

By W. H. BYFORD, A.M., M.D., PROFESSOR OF OBSTETRICS, CHICAGO
MEDICAL COLLEGE.

In most cases, dropsy of the amnion occurs only in the later months of pregnancy, and rarely in a degree sufficient to be more than a cause of tedious labor.

The tediousness in such cases is, doubtless, owing in part to the enfeebled condition of the uterine muscular fibres from over distension ; more especially is it due to resistance of the tough membranes which render the accumulation possible.

While a moderate excess of liquor amnii at such a time is not uncommon, a great and dangerous dropsical distension of the amnion in the early part of gestation is very rare.

This latter condition undoubtedly is often prevented by the distension provoking powerful action of the uterus, and thus inducing abortion.

I do not find a case of early and extreme dropsy of this membranous sac reported in the transactions of the London Obstetric Society from the time of the organiza-

tion of that institution to the present. Dr. Hodge, in his great work on Obstetrics, ignores it ; while Cazeaux and Leishman only compile a short account of it, and leave the impression that neither of them has seen it.

I desire to call attention to a case that recently came under my observation, in which the accumulation was so great as to endanger the life of the patient and call for instant and decided means of relief.

The patient was an Irish woman, thirty-three years of age, the mother of three children, the youngest of which was two years old. She had always enjoyed good health, and passed through her previous pregnancies and labors without the occurrence of any unusual circumstance. When I saw her, August 30th, 1875, she supposed herself to be five months pregnant, and had for several weeks perceived foetal movements.

About two months previously she had noticed enlargement of the abdomen, and since that time had increased in size very rapidly. When I first saw her, she presented the appearance of a patient with a very large multilocular ovarian tumor. The distension was so great that it caused much difficulty in breathing, and materially embarrassed the circulation.

The tumor extended up to and under the ribs, crowding the diaphragm high up into the thorax, displacing the heart upward, and pressing the costal cartilages outward nearly to a horizontal elevation.

The tumor was not definitely globular in its outline, but filled every portion of the abdomen and appeared to be packed into all the irregularities of that cavity. Its anterior portion was very prominent and uneven in contour, with several globular elevations of different sizes. One of these, and perhaps the largest, occupied the epigastric and a part of the right hypochondriac regions, the appearance of which strongly resembled one of the cystic prominences so often observed in the multilocular ovarian tumor.

To the left and a little below the umbilicus, a similar

but smaller eminence could be seen, while the whole umbilical region was occupied by what seemed to be another very large cystic projection. The lumbar regions were prominent but dissimilar in contour.

The varied postures which the patient was directed to assume made no difference in the shape of the tumor.

Percussion elicited no resonance in any part of the abdomen except very near the spine on both sides.

Fluctuation was apparent in every direction, but not equally. It was very indistinct anteriorly below the umbilicus, when percussion was made on the side of the tumor, but was quite distinct when the two hands were near together in this neighborhood.

From opposite sides, on a level with the umbilicus, very decided fluctuation could be elicited. Fluctuation could also be perceived distinctly in any distant part of the tumor when percussion was made over the epigastric elevation, or on the hypogastric region. No fluctuation was felt when the hand was placed over the resonant lumbar regions.

Upon making a vaginal examination, the uterus was found to be very low in the pelvis, the mouth far back toward the sacrum and sufficiently open to admit the finger, and the membranes were very tense. I could feel the head of a fœtus anterior to the cervix, and perform ballottement very easily ; thus demonstrating the existence of pregnancy.

By passing two fingers high up in the left side of the pelvis, manifest fluctuation could be detected by them when percussion was made upon the upper part of the tumor.

The general aspect of the patient indicated great distress ; her breathing was hurried and imperfect, and her countenance was suffused ; the pulse was accelerated and feeble ; the feet and legs were œdematous ; the skin dry but not unnaturally warm, and the patient complained of great thirst. For two nights she had been unable to assume the horizontal position from a sense of

impending suffocation, and had slept but little in the sitting posture.

Drs. J. N. Lilly and E. O. F. Roler met me in consultation at 2 P. M., August 31st.

There was no difficulty in ascertaining that all the symptoms were caused by a great accumulation of fluid in the abdomen, but what was the containing cavity was not so easily determined. The appearances alone, indicated, as we thought, the complication of a multilocular ovarian tumor with pregnancy. We did not think of ascites, and dropsy of the amnion was not certain. By evacuating the fluid we could most likely arrive at a correct diagnosis.

The idea of paracentesis, although discussed, was not entertained for fear of puncturing the impregnated uterus; and we determined to evacuate that organ for the purpose of making one step in the diagnosis, if it did not relieve the patient.

With the female catheter I ruptured the membranes and removed a pint or more of fluid, and through the rupture could feel the naked feet of a fœtus.

As an elastic and very tense substance was still to be felt in the os uteri, and I was not certain of its nature, I requested Dr. Lilly to make an examination. He declared he could feel the unruptured membranes, and that I was mistaken in supposing I had penetrated the bag of waters. I requested him to finish the work. After making strenuous efforts to do so with his fingers without success, I gave him the catheter, and it required considerable force to pass the instrument through the membranes. When he succeeded the bed was instantly deluged with water, and the abdominal tumor diminished with great rapidity.

Soon the outline of the contracting uterus could be seen and felt through the abdominal walls. The evacuation and contraction continued, until the uterus assumed its ordinary shape and size at five months' pregnancy. Thus the diagnosis and relief to the patient were both accomplished.

Squibb's fluid extract of ergot, in doses of thirty minims every two hours, was prescribed, and she was left in the care of Dr. Lilly, whose patient she was. After a short rest the uterus began to contract vigorously, and in about two hours two foetuses, with their placentæ and membranes, were expelled. Dr. Hutchinson, who was called to the patient on account of an unavoidable absence of Dr. Lilly, made a careful examination of the expelled contents of the uterus, and assured me that, with the exception of the unequal development of the two membranous sacs, he could find nothing unusual about them. The foetuses were equal in size and very like each other in appearance. Taking everything into consideration, it was evident that the membranous cavity of one foetus was normal, while that of the other was distended with an enormous accumulation of amniotic fluid, and the membranes themselves were abnormally dense and tough. Much of the difficulty in arriving at a correct diagnosis in this case was caused by the great irregularity in shape and extreme amount of the distension. The early occurrence and rapidity of increase of the accumulated fluid, also produced uncertainty.

Cazeaux, who is closely followed by Leishman, says that dropsy of the amnion rarely occurs before the fifth month of pregnancy. In this case it commenced about the end of the third month, and attained a dangerous magnitude in the space of seven or eight weeks.

The two authors just mentioned speak of the difficulty of distinguishing between ascites and dropsy of the amnion, but do not consider the likelihood of confounding the latter affection with ovarian dropsy. They give the general symptoms present in our patient in a marked degree, viz., scanty urine, œdema of the lower extremities and genital organs, thirst and fever, as indicating the presence of ascites instead of dropsy of the amnion.

Dr. Washington L. Atlee, in his work of unsurpassed value on the general and differential diagnosis of ova-

rian tumors, speaking of dropsy of the amnion, says: "In this form of dropsy, therefore, it must be plain how closely it resembles encysted or ovarian dropsy in its physical characteristics. In being rapid in its development also, it is not unlike acute cases of ovarian tumors. It differs, however, from that, in uniformly suspending menstruation, and by altering the shape of the cervix uteri in proportion to its development, rapidly expanding and obliterating it, which is readily ascertained by examination." He might also have added ballottement as a valuable differential sign.

Dr. Atlee details three cases, two of which he saw, and for the other he copies the notes of Dr. James W. Kerr, of York, Pennsylvania. One of the patients was five months advanced in pregnancy with twins, when spontaneous miscarriage took place. He estimated the amount of amniotic fluid discharged, at three gallons. His other patient was seven months pregnant with quadruplets, when the four sets of membranes ruptured successively and spontaneously, and the whole contents of the uterus were expelled. The case communicated to him was mistaken for peritoneal dropsy, and tapped at the end of six months. Thirty-two pints of amniotic fluid were evacuated, when the uterus contracted down to its usual size at the sixth month of pregnancy. In a few days the fluid was accumulating so rapidly that it became a question whether the operation should not be repeated, as all the urgent symptoms were returning. Two weeks, however, from the time the fluid had been evacuated by the tapping, spontaneous expulsion ended the difficulty. The woman recovered rapidly from her confinement, and during the year and a half which had elapsed, at the time of writing, had enjoyed excellent health.

Dropsy of the amnion is not mentioned as one of the fluid accumulations in the abdomen, liable to be mistaken for ovarian tumor, by Mr. Spencer Wells, in his work on ovarian tumors, or Dr. Peaslee, in his book on the same subject.

A RARE CASE OF FRAGILITAS OSSIUM.

BY WALLACE BLANCHARD, M.D., CHICAGO.

In a general view of the subject, bone may be considered as made up of two proximate principles—the organic and the inorganic; upon the relative apportionment of which its strength depends.

A marked variation from a standard may be taken as a condition of disease; an excess of the organic matters constituting the rachitis so frequent in childhood and the osteo-malacia of adult life; while the opposite condition, of a preponderance of the inorganic or earthy materials or certain of them, gives us the fragility so often troublesome in the aged.

Fragility is very infrequent in early life, and when it does occur, I believe it may be of a different variety, pathologically, from the senile form. No attempt is made to indicate this in the medical literature at my command; surgical authors mainly agreeing with Grant that “fragility is pathologically the opposite condition to rickets,” and giving but little further satisfaction as to the etiology and pathology of the disease.

Chassier gives a remarkable case in a child that survived its birth but twenty-four hours. Gross gives the case of a young man, “whose extremities were repeatedly broken by the most trivial accidents,” and also a case of congenital fragility running through three generations, one of a family of children suffering five fractures.

The case here reported is that of Miss J——, aged twelve years and six months. At birth she was pronounced a healthy baby, but at her second month of life she suffered a fracture of the left femur, at or near the neck, and has demonstrated the brittleness of her osseous structure, every three or four months since that date, with astonishing regularity.

The mother’s enumeration of fractures produced, is as follows: Right arm, 3; right fore-arm, 4; left fore-arm, 3; right thigh, 2; left thigh, 3; right leg, 14; left leg, 11;

total, 40. To this I would add a well marked transverse fracture of the sternum, between the fourth and fifth ribs, which, though the mother and daughter are at variance as to the date of its occurrence, has certainly existed for a long time. This is the only fracture not occurring in the long bones of the limbs; and the left humerus is the only one of these long bones so far, which has escaped the accident.

In more than one-half the fractures of the fore-arms, both radius and ulna were broken simultaneously, and in all the fractures of the leg, the fibula gave way with the tibia. In fact, a solution of continuity in the long bones, has been repeated in the limbs of this child at least sixty-eight times.

We have but a slight suggestion in these fractures, of the laceration and contusion that accompany the fracture of a healthy bone, as well as of the inflammation and congestion that usually accompany it; consequently this patient has suffered but comparatively little pain.

The force required to produce a fracture in this case can hardly be termed violence; a step from the sofa to the carpet, or the most trivial slip or fall, being sufficient.

The process of union is tedious in the extreme. On removing the dressings at about the seventh or eighth week, the provisional bone uniting the fractured ends has about the firmness of the rubber in the pencil-mark eraser in common use; and two or three years are required to bring the union to any considerable firmness. Usually, however, the dressings have been removed at the second or third month, and the new union being of too pliable a material to resist the contracting power of the muscles, a gradual mal-position has followed; reaching its greatest consummation a little more than a year from the time of fracture, and in the year or two following, becoming comparatively firm in its new and vicious position. This has been repeated till the poor child is in truly a pitiable state of deformity.

In each case, the displacement has been of an angular

variety, the callus being of sufficient strength at the time the splints were removed, to keep the fractured ends of the bone approximated.



In the cut made from a photograph, the seeming shortness of the thighs is largely due to their being nearly on a plane parallel to the camera. The lines running from the figures 1 and 2 indicate the elbows ; and those from 3 and 4 terminate at the lower edge of the patellæ. The distortions of the right fore-arm and thighs, are not as well shown as those of the left fore-arm and legs.

The family history gives no evidence of a scrofulous or other morbid taint, and both parents indignantly deny the possibility of any syphilitic infection. The mother says that from her first month of pregnancy up to the time of her delivery, she suffered constantly from sickness at the stomach ; being able at no time whatever to retain even the smallest amount of solid food, and that she lived almost entirely on essence and tea of peppermint slightly sweetened. One night during the second month of parturition, she suffered from urinary retention, accompanied by very severe pain, which was relieved by

catheterization. For three months afterward her urine was voided with an intense burning sensation.

The girl's appetite is generally good, and her food is as nutritious and varied as could be desired; while the assimilating process seems to be as perfect in all the soft parts of the body, as could be expected.

The muscles are very well developed, except where they have become atrophied through a total want of use.

She has been at various times on such general tonics as iron, quinia, and strychnia, and for extended periods the vegetable acids have been exhibited, but so far with no perceptible effect on her fragile diathesis. She is very intelligent, and still retains considerable dexterity in the use of her hands and arms.

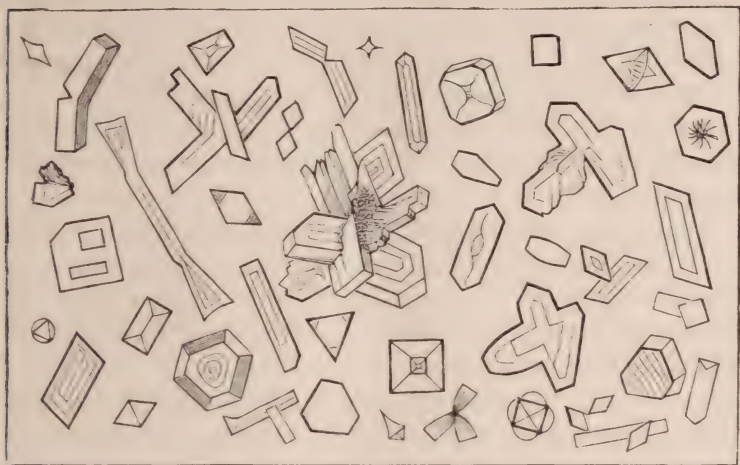
It may be stated that an inordinate quantity of earthy, especially phosphatic, matter, in the urine, is one of the diagnostic symptoms of this disease.

The microscopical examination of the urine of this little patient reveals a field of exceeding beauty. It is absolutely covered with crystalline forms. These are mainly of the phosphate of lime, with occasional octahedra of oxalate of lime, and a more moderate display of crystals of the urate of soda, phosphate of ammonia, etc.

Knowing that any verbal description I might attempt would fail to convey an accurate idea of this condition, I have again invoked the assistance of the engraver. Beside the forms given in the cut (and they are but samples of those most constantly appearing,) there are frequently recurring spherical masses of the urates and phosphates, that might be termed microscopic calculi, covering, often, nearly the whole field; and the intervening spaces are everywhere dotted with amorphous urates.

The urine has an acid reaction to litmus paper. This is probably due to an excess of phosphoric acid. Beale says: "It must not be supposed that highly alkaline urine necessarily contains a very large excess of earthy phosphate; for often an excessive quantity of the salts

has been found dissolved in acid urine." The urinometer shows the rather unusual specific gravity of 1.030.



Etiologically considered, we may conclude that this disease was probably engendered during the period of gestation; the mother's blood becoming, through her long and forced partial starvation, too impoverished to supply the needed elements to her child in utero for the proper development of its osseous structure.

During the mother's urinary retention, there may have been a degree of uremic poisoning; but that is doubtful. There is no evidence of other causes.

Pathology.—The morbid action seems to be a chronic state of osseous inanition; from partial obliteration and diminution of the calibre of the ramifying canals supplying the nutrient cells. This, if long continued, would give the periosteum a greatly increased density, while it would leave the agents of assimilation and nutrition within the cortex, in a perishing condition. I think a dissection of the bone, would show the cortical portion to be a thin, smooth and compact shell, covering a reduced cancellated structure, and an enlarged medullary canal.

Paget, Ashhurst, Gross, Pirrie and others, consider the fragility of old age, and that which may occur in youth, as pathologically identical. They agree that, previous to the osseous fracture, the patient is harassed with severe and fixed pains; that on dissection the bone is shown to be thickened and of roughened outline; while its body, including the periosteum, is a vascular and spongy mass, infiltrated with fat and bloody matter; a form of fatty degeneration.

These are undoubtedly the conditions in the senile variety. And I may add that I have had a corroborative case under my own observation. About nine years ago a cadaver was brought into the dissecting room of the Chicago Medical College, in the long bones of which I counted, if my memory serves me correctly, seven fractures. The body was that of a woman apparently seventy years old, perhaps even older. It presented no indications of constitutional or other disease, unless old age could be so considered. The anterior ridge of the tibiæ was nodulated as in an old case of periostitis. On dissection a good portion of the body of each long bone was found to be an incongruous mass of brittle, spongy tissue; the central canal and periosteum alike obliterated. The cell partitions leaving large interstices, were filled with an oily substance, and the whole was often friable under the fingers.

Several of these bones are now in the collection of the Chicago Medical College Museum.

From this form, the disease under which my patient suffers, differs in many if not in all essential points. She has no premonitory pains, and the bones at all superficial points have a smooth, hard feel, excepting only at the places of fracture; and, when broken, the crepitation seems much the same as would be produced by rubbing together the broken edges of a piece of china ware. It seems also to differ as widely from the fragility of atrophy; this latter disease resulting usually, I believe, from either an inflammatory action engendered by cancer, rheumatism, syphilis, or a structural change in

tissues contiguous to the bone; in this last case the fragility being merely local.

The term "*Fragilitas Ossium*," though common, is undoubtedly an unfortunate one; as indeed is any name that instead of giving some distinct pathological condition, only expresses a result that may have had its origin in any one of a wide range of different causes.

My attendance covers now a period of about four years, during which time the disease has progressed uninterruptedly; and I must say, with a feeling of regret, that I am hopeless of better success in the future; only expecting to be of service in treating the fractures as they may occur.

Since writing the above report, I have been again summoned to this patient, in order to dress a fracture of the left ulna. In this instance the injury resulted from a strain brought to bear upon the bone while the patient was playfully holding to the dress of another child.

CONCERNING THE BOWEL AFFECTIONS OF INFANTS.

(Suggested by Prof. N. S. Davis's paper.)

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(Read before the Chicago Society of Physicians and Surgeons, Sept. 13, 1875.)

MR. PRESIDENT AND GENTLEMEN :

I desire at this time to occupy a moment with some consideration of the causation of the intestinal affections of infants, elicited by Prof. Davis's paper read before this Society at its last meeting.

And first, in reviewing the various bowel troubles of children, I believe the gravest error will be committed if these several diseases are considered collectively, either in their etiological or pathological relations, as though they possessed the same pathology and have the same causa-

tion. I hope to remind you that the intestinal affections of young children have marked individuality, and that a comprehensive knowledge of their characteristics only will enable us to treat these diseases rationally.

There is another chance of serious error in founding theories upon the showing of the mortuary tables of a city ; this source of error is so apparent as to seriously invalidate the conclusions drawn from these tables. Assuredly, the mortality tables may show, in an indefinite and general manner, that the bowel diseases of infants are more common in the summer than during the winter ; but the exacting student will not be satisfied with information so vague, concerning this large class of diseases : he wishes to know if a particular, well-marked disease is more prevalent during a particular state of the weather, in order that, by consulting the meteorological or other records for that period, he may learn whether or not the existing atmospheric and telluric conditions can stand in the relation to that particular disease as cause to effect. It is in this direction alone, that trustworthy information can be obtained ; but the present mortality records are utterly valueless for this purpose, because the giving of certificates of the cause of death is not exclusively in the hands of competent, honest practitioners.

I propose to examine briefly the more common of these affections, to see if they do really possess certain etiological distinctive traits ; and, for simplicity, I will divide them into two classes. In the first class, cholera infantum and dysentery will stand alone. For the present, one can not question the propriety of classing the cholera of infants among bowel complaints, and it may, in reality, have as much claim to be so classed as typhoid fever has to its place among enteric diseases ; but subsequent study may remove both from this category, and call them specific toxæmiæ.

An infant living in the poor and badly drained wards, or the more healthy localities, previously of robust health, or a puny child, is attacked suddenly with vomiting

and discharges from its bowels, accompanied by abdominal pain, a colic, and cramps of the lower extremities. The matter at first vomited is the food incompletely digested; if vomiting continues, greenish mucus is ejected with serous matter. The first dejections are the contents of the intestine; then follow in rapid succession large discharges of serum, and foetid, watery matter containing small flakes and cells of epithelium from the lining of the intestine—"the rice-water dejections." If the onset is severe, the stage of collapse soon follows; the nose is pinched, the cheeks fall in, and the eyes are sunken; the lips are purple, and dark blood remains under the finger nails; the body is limp, and the extremities fall helplessly if raised; the expirations feel cold to the hand; the cutaneous surface is cool and clammy. From this moment, one of three courses is consecutive: first, cessation of the vomiting and intestinal transudation, recovery from the collapse, and convalescence within twenty-four hours; this course is the rarest. Second, death from collapse within forty-eight hours of the onset; next in frequency. Third, recovery from the collapse, follows, but loose dejections continue, and a diarrhœa is kept up by the presence of imperfectly digested food. Serious organic change has taken place in the intestinal lining, which favors the diarrhœa, and from which recovery is slow. In a day or two, the dejections contain disintegrated coagula of caseine from the milk, made green with changed bile, and mixed with some intestinal mucus; constituting the "chopped grass" dejections of some observers. I am persuaded this is the most common ending of cholera infantum, viz., in a diarrhœa which may soon end in death, or recovery after a long convalescence.

It is important to observe that the duration of cholera is short, it is usually limited to forty-eight hours, and ends with the collapse; the diarrhœa which is often a sequence, is from chronic indigestion, and is not essential to the first attack.

All have observed the identity of this disease with the cholera nostras, or morbus of adults ; as far as we know, it is the same both respecting its causation and pathology. But, just as typhoid fever may occur without epistaxis and rose spots, even, so may the cholera of infants be modified and its vomiting be absent ; on the other hand, just as there can be no typhoid fever without involving the patches of Peyer, so there is no cholera infantum without the sudden transudation of the serum of the blood through the intestine. This is its characteristic, but whether its essential pathology lies in the presence of bacteria or a blood ferment, we can not perhaps declare to-day.

I insist upon the identity of this disease because it has an identity, which it is both practicable and easy to recognize. One fact must have been suggested to you, viz., that the disease is not a common one ; still, in the aggregate, many children are destroyed annually by cholera, and that, too, in the country and the populous cities.

Respecting the real causation of cholera infantum, we must confess our utter ignorance, for nothing is positively known of it. If it be accepted that cholera is a specific disease, (and who will say it is not ?), then a specific origin must be admitted, for the day has long passed when several distinct origins were admitted for a single specific disease. A notable illustration of this is seen in the recent progress made in the study of typhoid fever, to which I have already alluded. It was formerly thought that filth, and the presence of decomposing animal and vegetable matter, were all that was required to engender this disease, but it is now known that one may live in a village of slaughter-houses, surrounded by foul privies and stinking sties, and yet not have typhoid fever. But once spread the dejections from a typhoid fever patient in that locality, and an epidemic of that disease will be precipitated which will not be limited to the unfortunate inhabitants of that unwholesome region. The develop-

ment of the cholera of infants and adults, is obedient to the same law of extension, and the germs of cholera, if implanted in the proper soil, will bring forth cholera as immutably as the grain of corn brings forth corn and no other grain.

Many observers, with Prof. Davis, have noticed a greater prevalence of cholera infantum during the heated terms, than during the remainder of the year; *ergo*, the heated atmosphere is the origin of cholera infantum. This conclusion is as fully shown to be erroneous, as the filth origin of abdominal typhus; by the fact that cholera is not most common in the hottest climates, and that it not infrequently occurs in our own country at another period than the hottest. The first case of cholera infantum, which I saw with my teacher, occurred early in May, before one hot day had elapsed. As a matter of fact, quite as many observers have remarked the greatest extension of cholera, not during the hottest weather, but when the hot days are interrupted by cool nights, and by an occasional cold, wet day.

Further, we are told that if the degree of heat is not the direct source of cholera, it is something else which is aroused, set in motion by the caloric. One can not oppose this theory with much that is positively known, but there is as much reason for supposing that the dew, the moonshine, the wind, or any other imponderable agent, may be the source of this disease.

In view of the facts, it is clear that the occurrence or extension of cholera infantum, does seem to be favored by some condition connected with the warm semester of the year; perhaps in the same manner as that in which small-pox is favored by winter; but the many instances of the occurrence of these diseases at other seasons, show conclusively that their occurrence or propagation does not depend upon any degree of temperature.

Closely allied to cholera infantum, is the so-called choleriform diarrhœa, to which many infants are subject during the prevalence of cholera, and which attacks

adults, even, while sporadic or epidemic cholera is prevalent. In this affection, the child has been subjected to, and infected by the poison, but is overcome by it to a less degree than one who is the victim of well developed cholera. Nor does this imply an untenable theory, but a feature in infectious diseases that every one recognizes. The disparity in the effect of infectious poisons is explained in two ways: first, that it depends upon the amount of poison taken into the circulation; second, upon the vulnerability of the person. I accept the latter, for it agrees more closely with our knowledge of other intoxications.

The dysentery of infants I have also included in the first class. As the object of these remarks is to define and separate the intestinal disorders, but little need be said of dysentery, for all have admitted for it a specific causation; and that it is not essentially unlike the dysentery of adults. Being an infectious disease which occurs usually in endemics or epidemics, it will not be entertained that any degree of heat can cause dysentery; it is sometimes entirely absent throughout the hottest summers; when it occurs, however, it has sometimes been observed to select the summer months; though its period of most rapid extension is after the occurrence of frosts, and the beginning of cool nights.

Reliable data are wanting concerning the relative prevalence of dysentery; most observers agree in this, however, that it is not a common disease of infants.

These remarks are not to be considered as applicable to entero-colitis, a disease whose morbid anatomy is essentially that of dysentery, but whose etiology differs from that of the latter in this most important particular, viz., entero-colitis is not a specific disease; hence, strictly, it should be included in the second category.

A variety of exciting causes are sufficient to set up an inflammation of the colon with the lower part of the small intestines, but the most frequent cause is the retention of irritating and undigested matters in the colon; and because

the habit of constipation is necessary to the habitual retention of fæces in the colon, it follows that those persons who labor under the habit of constipation are more liable than others to this disease. Further, because constipation among infants is rather the exception than the rule, they are not the especial subjects of entero-colitis, as nearly all will admit when its characteristics are recalled: tormina and tenesmus are prominently present from the first; in a day or two, the tenesmus is usually so constant that almost the entire day is spent in straining at stool; the lower sphincters of the bowel soon become paralyzed, the anus excoriated, open and everted. The character of the dejections is of the greatest diagnostic importance; when the bowels have been once completely evacuated, the dejections contain blood and pus, and soon but little else; this is the essential factor; which, if absent, excludes the disease.

I have noticed one striking fact in consulting authors, viz., that no one has accorded any importance to the agency of heat as a causation of entero-colitis; on the contrary, almost every writer says that exposure to cold and damp is an exciting cause of this disease.

In the second class of bowel disorders, I would include those of simple diarrhœa. At the outset, we must admit that it is not scientific to group together a class of diseases whose causation is obviously so dissimilar, and which have nothing in common except the diarrhœa; but, in the present state of our knowledge, we can perhaps adopt no better classification, except with the malarial diarrhœa, which might be included with other diseases resulting from malarial toxæmia; while [the reflex diarrhœa of dentition might, with some propriety, be classed with the neuroses.

The first of the bowel affections I would review, in which diarrhœa is the prominent symptom, is the reflex diarrhœa of dentition. Reflex phenomena are everywhere common enough in medical experience: thus the presence of undigested matter in the stomach and bowels

has not infrequently excited convulsions in an infant, and has been followed by paralysis of a limb. A recent medical journal contains an instance of amaurosis in a child from the presence of a tape worm. These are phenomena due to reflection outward from the bowel, but instances of the opposite reflection are not wanting. I know a lady who has a watery diarrhœa, sometimes amounting to eight dejections in an hour, each time a thunder shower passes over her head. I have seen more than one man whose intense anxiety on the eve of a battle, gave him a violent diarrhœa; under the same circumstances, instead of the rapid intestinal transudation, other men pass large quantities of urine. These are instances of reflection from profound moral impressions, but others are known quite similar to the disease under consideration. Thus it is not uncommon for an adult or child to have a diarrhœa, caused directly by the pain of a felon; or a little child suffers from a finger bruised in the jamb of a door, and has a watery diarrhœa as a consequence.

Two essential conditions seem necessary for the occurrence of this affection: first, the vulnerable subject; second, a profound impression upon, or irritation of some part or region of the body which is well supplied with nervous structures. How fully these conditions are answered in the teething child must be apparent to all.

Besides the profound nervous impression that the growth and eruption of the teeth is capable of exciting, it is important to recall the fact that, simultaneously with the process of dentition, another physiological change is taking place in the intestinal structure itself, viz., a development, an evolution of the follicular apparatus of the intestine, which, in itself, may excite a diarrhœa by inducing an hyperæmia of the intestinal lining.

The great majority of writers have fully admitted this variety of infantile diarrhœa, and I would hardly be warranted in thus enlarging upon it, had not the author

to whom I refer, entirely ignored and repudiated this affection in the paper which has been presented to you. He says, children teething in the winter as well as in the summer, and that teething cannot cause cholera infantum, because the winter mortuary tables show almost no cholera infantum, while hundreds of children die from this disease during the summer. I am not aware that any one has affirmed that the process of teething is the cause of cholera infantum, but a reflex diarrhœa, which is essentially unlike cholera. Let me remind you, also, that the tables furnished by the Board of Health do not aim at showing the prevalence of a disease, but only the deaths from a disease; and that in an unreliable manner, as we have seen, because of the unreliable data furnished to the Board by promiscuous practitioners. Now as the diarrhœa of teething is early amenable to proper treatment, and it is hoped that but few die from this diarrhœa alone, it is not to be expected that the mortuary tables can inform us of the relative prevalence of this disease at different seasons of the year.

The accuracy of another premise might be questioned by some, viz., that as many children are teething in the winter as in the summer. It has been found that a larger number of births occur during the last two and first two months of the year than at other seasons. If this be true, then the majority of infants are cutting their first teeth nearly simultaneously during the summer season. This is comparatively unimportant, while the great fact remains established, that the process of dentition does provoke diarrhœa in infants, and that, too, in the winter as well as in the summer, a fact which all can verify. But as all are not susceptible to reflex phenomena, so do some children pass through dentition at all seasons without diarrhœa. Moreover, many infants suffer this affection who are not seen by the physician; the mother, recognizing the trouble, says "the baby is teething," and contents herself with rubbing the swollen gum till the tooth comes through, and there is a slight respite until the gum becomes tender again from another offending tooth.

Again, the essayist declared the process of dentition to be like the growth of any bone. I beg that gentleman to pardon me, but the notion seems as preposterous as it is incorrect. What analogy can he recognize between the unfelt and unnoticed consolidation of the epiphyses and shafts at fifteen, and the sickening, weakening process by which the wisdom tooth is erupted at twenty ! No such analogy exists in the adult, and still less in the sensitive infant, who is overcome by the painful yet physiological process of dentition.

It is highly probable that the heat of summer, by its relaxing, enervating influences, may favor the continuance of all varieties of diarrhœa ; but it must be accepted by you that the disease under consideration is unequivocally the reflex effect of the process of dentition, and can not be set in motion by heat.

Second : The diarrhœa of sepsis or toxæmia. I have not wished to coin a new term for a disease with which you are all familiar ; but, following the plan already expressed, we will ascribe to each disease its own characteristics, so far as we are able to do this accurately as in the present instance.

The continued respiration of air which is vitiated by the exhalations of decomposing organic matters, will produce in some persons a toxæmia, that declares itself, among other ways, in a diarrhœa. A common illustration of this, is the diarrhœa which some medical students suffer who imprudently remain too continuously in the dissecting and autopsy room. An interesting fact in this connection is, that the dejections exhale a foul effluvium quite suggestive of that from the cadaver.

Among infants, the usual source of this toxæmia is in respiring the air loaded with exhalations from privies, from the decaying matter left upon the surface, and from stagnant pools of water made foul by receiving slops and offal of all kinds. It follows from this that infants living in poor wards, and in districts whose sewerage is incomplete, should be the special subjects of this dis-

ease; moreover, it is this disease, the prevalence of which seems to stand in a direct ratio with the amount of pavement, or the extent of drainage of a certain precinct—it is this disease, and not cholera usually, that increases the infant mortality of large cities and towns especially.

As the heat of summer favors decay and the dispersion of noxious matters, it is natural that the period of greatest prevalence should be coincident with hot weather. But heat obviously can not be the primary origin of this affection, for let the children be completely removed from this vitiated atmosphere, and this disease will not occur, no matter how hot the summer. It is also well known that if the drain pipes of a house, in a most favorable locality, become obstructed, the infants in that house stand in imminent danger of this disease even in mid-winter.

Third: The diarrhœa from acute indigestion. The infant is profoundly and easily overcome by the effects of matter taken into the stomach, which is itself indigestible or capable of intercepting the process of digestion. In the case of the child whose food is mixed, and who eats fruit and vegetables, ripe and unripe, and improperly cooked meats, the exciting causes of the attack of indigestion are as various as in the adult; but in the infant whose only food is milk, either from the mother or cow, we are forced to look to the milk as containing the offending matter.

An interesting physiological inquiry is raised at once: Can the milk of a healthy cow contain matters almost toxic in their effects upon the infant whose stomach receives it? Most practical men will answer this affirmatively, almost without thought. As a familiar fact, all know that a cow fed on garlic will give milk flavored with garlic. If we were acquainted with no other proofs, this alone shows conclusively that certain matters, taken into the stomach of an animal, are eliminated through her milk ducts; if this is true of garlic, why not of other matters that we are not able to detect. In support of this, I recall one instance, which can be supple-

mented with many others by nearly all present. An infant less than six months old had been fed exclusively upon the milk of one cow, diluted as is recommended, and had suffered a diarrhœa from the first, which had resisted all remedial measures. I inspected the surroundings of the cow stable, and found that, it being mid-winter, the cow had been fed largely upon old, wilted cabbage leaves; the milk from this source was immediately suspended, and the recovery of the infant rapidly followed. Two months later, an accident happened to the vessel holding the daily allowance of the child, and the little one was fed upon the milk from the first cow, for a half day only, but that was sufficient to provoke a diarrhœa the following night, which continued some days.

In the pastures, there are many sources of contamination of the cow's milk; she drinks from little stagnant pools of water upon the surface, that are the receptacles of much decomposing matter and offal, washed in by every shower. You will observe that the time of the greatest danger of contamination of the water in the pastures, and the cow's milk, is during the heated term, when the noxious matters are concentrated by the rapid evaporation of the water. Hence the prevalence of diarrhœa from this cause during the summer, though it frequently occurs during the winter, as in the case cited.

A notable instance of the effects of contaminated drinking water occurred in this city very early during the past spring. Before the breaking up of the ice on the lake, it was said that the overflowing river had cut a channel through the ice in such a direction that the foul river water was driven toward the crib, and, without doubt, became mixed with the water in the city mains. However, in the space of twenty-four hours, I saw three cases of diarrhœa, accompanied by an unusual amount of depression, when I had not seen a case of diarrhœa for weeks previously. Upon inquiry of my colleagues,

I learned that a sudden outbreak of diarrhœa had occurred in their practice also. If there was no apparent increase in infantile diarrhœa at that time, the fact may be explained by remembering that young infants drink but little water ; and that the water perhaps was too slightly contaminated to affect the milk of the mother or cow who drank it.

It is not improbable that the infant who is fed naturally upon the breast, may also have a diarrhœa from vitiated milk. If cabbage leaves eaten by a cow can impart an injurious ingredient to her milk, why may not the mother's milk be thus changed ?

Fourth : In a few instances, a form of gastro-intestinal irritation among children has fallen under my observation, with which I was practically unacquainted. The slightly marked periodicity of the affection suggested the giving of quinine, which I did with benefit. I have since concluded that there is among infants, as I know there is among adults, a diarrhœa dependent among malarial infection, in which an anti-periodic, and especially quinine, seems indicated.

Fifth : I should not omit the familiar form of intestinal catarrh, which is the immediate effect of exposure to cold and damp, and which occurs more frequently during the summer and fall ; because the exposure is more common during those seasons.

The bowel affection, which is, by far, the most frequently presented to the physician, is diarrhœa from chronic indigestion. This is not a disease, *per se*, but the result of many affections. Thus it may be the sequence of cholera or entero-colitis, or the continuance of the reflex diarrhœa of teething, or an attack of acute indigestion may have been its beginning. I had almost said it is not important what the disease was that gave origin to this affection, the pathology and indications are essentially the same. It is now a diarrhœa kept up by the imperfect performance of digestion. Some disease, usually one of the foregoing, has effected some

serious organic change in the bowel, or an atony which does not admit of perfect digestion. The continuance of this diarrhoea seems favored by the depressing influence of hot weather ; during which the little patient becomes rapidly emaciated, and is soon destroyed.

Conclusions : Upon examination separately of the diseases known as bowel complaints, we have failed in every instance to find that the disease was originated by heat ; therefore heat can not be regarded as the source of the several diarrhoeas ; for what is untrue of each of a class is untrue of the whole.

It is unscientific to apply the results of study of one particular affection to the entire class of intestinal diseases, and it is the ignoring of this source of error which has led to such varied and wrong conclusions. Thus, for example, many have noticed that bowel affections are more prevalent in summer, and have concluded that the origin of these diseases is in the heated atmosphere. Another observer, whose field is the poor and foul wards of a city, concludes that the bowel affections of children are caused by foul air. A third has the fortune to see much diarrhoea among teething children, and hence concludes that dentition is the cause of all the bowel affections of infants. A fourth has observed that those children who nurse from a bottle, are often the subjects of diarrhoea, and concludes that artificial feeding is the cause of the diarrhoea of infants. In point of fact, these different observers have been studying distinct diseases.

Finally, the comprehension and rational management of this important class of disorders can only be attained when we recall the fact, that the causes of infantile diarrhoea are as distinct and numerous as these different affections themselves.

Correspondence.

CHICAGO, Nov. 15, 1875.

EDITOR CHICAGO MEDICAL JOURNAL AND EXAMINER—

DEAR SIR:—An editorial appeared in the last issue of the *American Medical Weekly*, which will call forth a protest from many of the medical profession, who desire progress rather than retrogression in medical affairs. The editorial bears the title “Physicians compounding their own prescriptions,” and opens by declaring “this is a subject worthy of the most careful consideration of every reader.”

The writer admits the truth of *this* statement, if there is any probability of the editor's views being adopted by the profession at large, but with this exception the editor bases his argument upon erroneous statements throughout; he assumes that the apothecary is of no value to the physician, further than as a compounder of prescriptions, also that the physician is equally competent to compound his own prescriptions. In this hypothesis he ignores the fact that the practice of pharmacy involves a peculiar knowledge of *Materia Medica*, quite unlike that required by the physician, as also, the skill necessary to prepare from crude materials the many chemical and galenical preparations now in common use, of which the physician has only a general knowledge, enabling him to properly prescribe them in the treatment of diseases. Without this previous preparation the physician would at once find himself unable to select from the numerous useful and elegant remedies now at his disposal.

The editor also assumes, that whatever pertains to medicine is—by some sort of proprietorship—the exclusive right of the physician to make and unmake. Modesty and justice would indicate the propriety of recognizing the status of so ancient and honorable an art as that of the apothecary, which has been correctly termed “the handmaid of medicine.”

If the relative merits of the two professions were to be accurately measured by the rule of medical progress, we are in doubt which would be found most worthy. Certain it is, the apothecary would have been sadly missed, by intelligent physicians, during the last hundred years, in the production of what became necessities for the modern practice of medicine.

The editor, while ignorantly admitting the services rendered by skillful apothecaries, in having made it possible for a physician to carry sufficient medicine in his pocket-case to supply each patient, coolly turns upon his benefactors with the statement that their services are no longer required. He says: "If medicines were administered in crude form, as of yore, it would be simply a matter of necessity that physicians, unable to carry with them a proper supply of medicine, should send their prescriptions to drug-stores." Who but the now useless apothecary caused this marked improvement? Has improvement in medicinal agents ceased to be desirable?

A leading argument used for dispensing medicines at the bedside, is, that each physician is losing annually from ten to fifteen hundred dollars as the profits to druggists. We fail to see how a man can lose what he never possessed, and we also fail to see the justice of appropriating the well earned fruits of labor belonging to the apothecary. If cash receipts (whether entitled to them or not) are to be the only gauge, we might suggest that the undertaker's fees are also within easy reach and they might possibly be increased if no careful apothecary stands in the way to correct errors of omission and of commission.

We have been of the opinion that the proper understanding of diseases and their treatment, was enough for the brain-work of any one man; and we have yet to meet the physician who has mastered the requirements of his profession.

Until we do meet with this order of mental and pro-

fessional attainment we shall object to dispensing with our excellent assistant, the careful and conscientious apothecary, as we think each profession requires for its proper work the talents and labor of separate and equally educated minds. Whenever prescriptions are dispensed by office students from medicines prepared by "wholesale druggists," (as the editor suggests,) we think the death-rate will alarm even the "Chicago Board of Health."

No physician having a "paying practice" would care to involve himself in so much risk and laborious anxiety, while to those who have not yet reached the goal of their ambition, we would say, study and work harder to become a good physician, and leave the work of the apothecary to those best fitted for its duties.

The editor gives a further reason for his proposed innovation, by saying that the subtle and powerful influence of the mind of the physician over that of his patient is destroyed by the intervention of the apothecary. This carries us rather too far into the science of psychology, and treads too closely upon the heels of Homœopathy. We are not disposed to follow him into a discussion of the comparative influence of medicine and imagination in relieving gastritis, but would suggest that an intelligent physician should use both mind and matter, in his treatment of the sick, with such masterly skill, that the dreadful apothecary shall not overthrow him.

Lastly, we should not forget, there are two sides to all questions, and if physicians should generally dispense their own medicines we fully expect to see apothecaries—as of old—become practitioners. They are, doubtless, quite as well fitted to exert a *subtle influence* and to prescribe for a large number of patients, as the physician to dispense his own prescriptions.

Let us be just to each other, and the two professions, nobly devoted to healing the sick, may each aid the other in its beneficent work, and thereby secure the best results for mankind.

Yours in behalf of

MEDICINE.

Editorial.

We greet our readers with a sincere wish that they may all enjoy a very happy New Year. The memory of the long train of magnificent events which have transpired during the century, of which this is the Centennial New Year, should be a joy to every citizen of these United States. A cursory glance at the prominent facts in the social and scientific history of our nation, will show sufficient grounds for their self-congratulation.

During the century we have gained possession of, and brought largely under subjection, the vast domain on which we dwell, with its wealth of fertility and rich deposits of minerals; established a government that is a model and example for nations struggling to be free; produced a galaxy of statesmen, generals, orators, philosophers, poets and scientists, who rival the fame of the classic Greeks and Romans, and whose names will lose their lustre only in the dissolution of the English language.

Two of the greatest inventions of modern times are of American origin: the steamboat, which carries trade and civilization to every quarter of the globe, and approximates the most distant countries; and the telegraph, that swift bearer of thought, which, even more than the steamboat, makes other lands seem near. The material benefit, moral improvement and great enjoyment afforded the human race by these two inventions, are entirely beyond our comprehension.

In agriculture we have taught mankind how to sow, cultivate and harvest by machinery, thus making manifold the capacity of every man who cultivates the soil.

Our nation has furnished many ingenious instruments and devices to lessen the labor of women, and now, in addition to the machinery for spinning, weaving and knitting, we have added the universally used sewing machine. And so we might continue on these general subjects until

a large book were filled, but we refrain, and turn to a rapid enumeration and brief mention of some of the most important achievements in medicine.

Before proceeding, we stop to say that we are proud of our dentists, who are part and parcel of our great profession. American dentists, even before the Franco-German War, were the leading dental surgeons of the great cities of the continent. They were sought by the aristocracy of Paris, Berlin, Vienna, Florence, St. Petersburg, etc., as superior practitioners, and we are not informed that any change has taken place since that great struggle.

In *Materia Medica* we have made a number of discoveries worth special mention, among which is *veratrum viride*. The discovery of the peculiar properties of this plant and its therapeutical application, were made by an American practitioner. Its effects in diminishing the rapidity of the circulation are very remarkable, and form a basis upon which rest its claims as a remedy in inflammation; and from much observation we are prepared to say that in pneumonia, pleurisy, cerebral inflammation, metro-peritonitis, and many other forms of inflammation, *veratrum viride* is a remedy of very great value. We merely mention a few others, as *cimicifuga*, *eupatorium*, *gelseminum*, *lobelia*, *podophyllin*, *prunus virginiana*, *spigelia*, *senega*, *serpentaria*, and *sanguinaria*.

Surgery has been enriched by the researches of American surgeons to a degree that does us great credit.

The war of the rebellion gave the members of our profession a field of vast opportunities, which was cultivated with an assiduity, intelligence and ardor that have resulted in many very important improvements in operations already established, and the introduction of new and valuable processes in surgery.

The profession in Europe have acknowledged the great service the surgeons of the armies on both sides of that great conflict, have rendered to the practice of surgery.

Among other things they have contributed largely to

a correct knowledge of the subject of resection of the joints, the treatment of wounds in the chest, the comparative superiority of out-door or tent accommodations for the wounded, to the confinement of such patients in hospitals, and the preference of coffee to alcohol as a stimulant for soldiers in the field.

In civil surgery a number of important operations have been given to the profession by American surgeons. The late Dr. Mott was the first to ligate the arteria innominate. Dr. Brainard instituted the valuable process of drilling the broken ends of the long bones to promote their union in ununited fractures, with variations to suit the taste of the operator. This has been adopted as a permanent improvement in that embarrassing condition of things.

The reduction of dislocated hip joint by manipulation, is now well understood and practiced as one of the great surgical improvements of our time.

Americans have done much to perfect and establish the operation of excision for caries of the bones related to the hip joint, to the systematic development of the plan of treating inflamed joints by extension, and the use of adhesive strips for extension in fractures.

It is now everywhere conceded that ovariectomy had its origin in America, and nobody seriously competes with our late great Kentucky surgeon, Ephraim McDowell, for the honor of having planned and executed this magnificent operation. He not only did the first successful ovariectomy, but he repeated, studied and worked it out in all its details, and taught it to the profession.

It is now universally acknowledged as a legitimate operation, practiced in all civilized countries, and by common consent its introduction is attributed to its rightful and successful originator, and thus in doing tribute to its author, the surgeons of the world unite in according the highest honors to his country.

This great achievement has hardly a parallel in surgical enterprise, and the completeness of the operation, as

it came from the hands of our renowned countryman, will appear the more remarkable when we consider the fact that some of the most successful operators now believe there has been little, if any, improvement upon his simple but scientific method of performing it, notwithstanding the many ingenious devices added by his successors.

Second only in importance to the original operation, is the practical and philosophical method of enucleating the tumor—taught by an eminent American cotemporary—under circumstances that render its removal otherwise almost impracticable.

The brilliant operation of removing an ovarian tumor by vaginal incision, may be enumerated among the recent triumphs of American surgery, which must eventually take rank as a practicable and legitimate proceeding, under circumstances that will be prescribed by future observation. Vaginal ovariectomy for the induction of the menopause in certain grave forms of chronic ovarian and uterine affections, not amenable to other methods of treatment, is now on trial in this country.

If our memory is correct, the method of rapid reduction of chronic inversion of the uterus, has been perfected if it did not originate in this country, and one of our eminent gynecologists has had better success in the practice of it than has hitherto been attained. The enucleation of intramural fibrous tumors of the uterus, is another operation almost wholly American, and the gynecologists of this country were the earliest to practice it extensively and successfully. The indications justifying a resort to it, the instruments with which to perform it, and all the manipulation and different steps of the operation, have been so minutely and lucidly described and illustrated by two living gynecological surgeons, that it has been divested of many of its difficulties, and become practicable by practitioners of ordinary skill and experience.

The world is also indebted to American surgery for

the only uniformly successful method of curing vesico-vaginal fistula. Although operations and various plans had been devised by many of the gifted surgeons of Europe, it remained for an American to simplify and bring it within the capacity of the general surgeon.

We think it is not too much to say that its successful performance was barely possible in the hands of the most experienced surgeons, while now we hear of its being practiced all over the country, and it is no longer regarded as an operation of extraordinary difficulty. The numerous difficulties, previously insurmountable, have been met and overcome by the indomitable perseverance of our professional compeers in this country.

Growing out of the experiences in that operation is the introduction of silver wire for sutures in certain plastic operations, and now it is used extensively here and abroad.

But the crowning event of the century, if not of all past time, is the American discovery of the means and methods of producing anæsthesia.

There is no discovery in the annals of medicine comparable to it except that of vaccination. It has created an era in the practice of surgery and obstetrics, and added an important therapeutical process in the general practice of medicine. The glory of this discovery is not shared by any but Americans, and it is an additional gratification to us to know that surgical authorities the world over, are returning to *our anæsthetic* as the most safe and reliable.

As now manufactured by several of our pharmaceutical chemists, ether is very nearly as speedy in its effects, and quite as effectual in causing a profound influence, as chloroform, or any of the newer compounds so highly praised.

With a record, feebly indicated by this very imperfect summary, as the result of the first hundred years of our national life, we are justified in expecting for the next century, such achievements as will make us rank with the most advanced of nations in every respect.

Let us then be earnestly thankful for what we have become, energetically devote ourselves to greater effort in the future, and enjoy our New Year in the happy assurance that we have done well.

The editorial management of the JOURNAL AND EXAMINER announce that, even with the unusual addition to the size of the present number, the publication of a large amount of valuable and interesting material is unavoidably deferred to another issue. It is, however, with great gratification that they note the unprecedented application for space in these columns, while they trust that correspondents will not be thereby deterred from further contributions. The past favors of the latter are gratefully acknowledged, with the announcement of the appearance of the papers named below, at dates as early as is found practicable :

On Complication of Labor by abnormally large superior strait, by Dr. J. Suydam Knox, of Chicago; On Cholera, viewed from a novel standpoint, by Dr. Henry R. Rogers, of Dunkirk, N. Y.; On Perforation of the Vermiform Appendix, with death in thirty-seven hours, by Dr. C. W. Earle, of Chicago; On Ergot as a Galactifuge, by Dr. C. H. Leonard, of Detroit, Mich.; The fourth paper on the Microscope in Daily Practice, by Dr. I. N. Danforth, of Chicago; On the Diagnosis and Treatment of Uterine Polypi, by Dr. A. R. Jackson, of Chicago; Reports from the Medical Societies of Chicago, Arkansas State Medical Society, Rock River Medical Society, and the North Central Medical Association; Clinical Reports, Service of Prof. J. P. Ross—two papers furnished by Dr. D. A. K. Steele; Reports from the Board of Health of Chicago; and Reviews of the following medical works: Rutherford's Outlines of Practical Histology, Darwin's Insectivorous Plants, Wood's Therapeutics, Küss's Physiology, Carter on the Eye, Spratt on Gout at the Heart, Ziemssen's Encyclopædia—3 vols., Greenhow on Addison's Disease, Lee's Lecture on Syphilis, and Wagstaffe's Human Osteology.

Clinics.

RUSH MEDICAL COLLEGE.

NEUROLOGICAL CLINIC.

BY WALTER HAY, ADJUNCT PROF. OF THEORY AND PRACTICE OF MEDICINE, LECTURER,
AND CLINICAL LECTURER ON NERVOUS AND MENTAL DISEASES.

(Reported by EDGAR SNYDER, Clinical Assistant.)

LOCOMOTOR ATAXIA.

Gentlemen—The patient, William Tonks, whom I here present to you, an Englishman, thirty-six years of age, is, and has always been moral and temperate in his habits, as his appearance indicates. His trade is that of a brass turner, which he has prosecuted continuously for seven years, maintaining a standing position constantly during ten hours daily.

He was sent to this clinic by Prof. Edwin Powell, on the 5th of Sept., 1875, giving the following history of his case:

In 1871 he began to feel low spirited and nervous, with constant dread of falling, which he attributed to weakness.

In 1873 he began to feel pains in the back of the neck and back of the hip joints, shooting downward toward the feet, and soon afterward a sensation as if he had been sitting a long time and his legs had gone to sleep.

He soon found it difficult to keep step with his companions in walking, feeling obliged to occupy his mind with his walking to watch his feet, which were always getting too far ahead of him. He would also lose his balance when stooping to wash his face. His bowels have been habitually constipated, and his urine is evacuated slowly.

His head has troubled him greatly, not so much from pain as with a dull, heavy feeling; he is easily excited, both mentally and physically, and as easily exhausted, especially in hot weather, and finds his mind much occupied with his feelings.

The pains in his lower extremities are less severe when he lies down than when he occupies any other position, but always recur within five minutes after he gets up in the morning.

He has been under various modes of treatment for various imaginary maladies, *i. e.*, for spermatorrhœa, for paralysis, etc., having taken a long course of "electric baths," but has gradually grown worse. To the latter treatment he is disposed to attribute an exaggeration of his dorsal pains, with how much reason it is difficult to say.

Having heard the history of this case, we will proceed to examine its objective features, as they present themselves to us. First, as regards intellection, the patient's expression, bearing, and conversation, enable us to conclude positively the entire exemption of his intellectual faculties from disease. His special sensation, moreover, is perfect; sight, hearing, taste and smell being all quite normal in their manifestations.

As he has been treated for paralysis, and pronounced a paralytic by medical authority, let us see upon what foundation such a diagnosis could rest. We will therefore examine into the function of motility. You perceive that the muscles of his face contract in perfect subordination to the will and the emotions, and that his upper extremities have lost none of their facility of movement nor muscular strength, the grasp of his hand being strong and vigorous.

We will now ask the patient to walk, and perceive that he does so with difficulty, his feet striking the ground outside of the line of gravitation, having been first thrown forward through an arc longer than the required length of the step, and falling backward—illustrating the patient's description of his feet getting ahead of him—strike the ground suddenly and abruptly, first with the heel, then with the sole of the foot, making two distinct sounds, the first a blow, the second a slapping sound the distinctive characters of these two sounds being clearly perceptible to the ear with each successive step.

His motion is a combined roll and plunge, and he keeps his eyes closely fixed upon his feet.

We will now place him in a standing position, and we perceive that his feet are placed much farther apart than is usual or natural, and when we make him approximate the inner edges of his feet, his position becomes unsteady, and when he raises his head or shuts his eyes, he topples over and loses his balance like an inverted pyramid.

Is he paralyzed in his lower extremities? We will now make an *experimentum crucis*. Seated upon the floor, and crossing his legs under him, the outer sides of his feet and legs resting upon the floor, he folds his arms and raises himself to a standing position by the action of the muscles of the legs alone, an experiment which very few men in perfect health could accomplish successfully. The theory of paralysis must be absolutely excluded.

With reference to sensibility, we have heard him speak of pains in his back, in his hips and legs, shooting downward to his feet, and of numbness of his lower extremities, "as if his feet and legs had gone to sleep." He tells us, moreover, that he feels as if there were something soft under his feet; that he feels inequalities in the ground with difficulty.

If we examine the soles of this man's boots we perceive that the heels are quite worn away at their outer and hinder edge, whereas the toes show no signs of wear. This is the result of the peculiar gait, and is so remarkable, that one might almost make the differential diagnosis between this and some other forms of disease by an inspection of the patient's boots alone. Upon removing his boots and socks, we touch the soles of the feet with the pencil, drawing the point quickly along the surface, but he perceives no sensation.

The instrument which I hold in my hand is an *æsthesiometer*, of which there are several forms devised by different neurologists, this one being that known as Hammond's, having been designed by Dr. W. A. Hammond, of New York, and consists of a small pair of

dividers having a transverse arm graduated. By means of this instrument the index of sensibility can be measured. This index of sensibility is the distance at which two points in contact with the skin may be distinguished; of course it varies with the locality. By applying this instrument to the soles of this man's feet, we find that the points can be distinguished as two, at distances varying from one-half to three-quarters of an inch upon different portions of the surface; at shorter distances apart, he is able to distinguish but one point, and that only when quite a deep impression is made upon the skin.

Here, then, are the first positive, objective evidences of perverted sensibility which we have yet detected: diminished sensibility—*dysæsthesia*—and diminished reflex irritability, exhibited by the insensibility of the sole of the foot to the point of the pencil drawn rapidly across it, which, under ordinary circumstances, would have excited the sensation of tickling, and occasioned a jerking away of the feet from contact with the object. I said the first positive, objective evidences of perverted sensibility, because pain and numbness are subjective purely, and we are entirely dependent for our knowledge in these particulars, upon the feelings of the patient, often very unreliable guides.

You will perhaps ask how these derangements of sensibility, *dysæsthesia*, and diminished reflex irritability, can alone produce the disturbances of motility exhibited in this patient. If you will reflect upon the intimate and necessary relation existing between sensation and motion in the acts of locomotion, the mystery will disappear. In the act of walking, the feet are moved by muscular action, but are guided to their proper positions by the sense of touch, stimulated by contact of the surface of the ground and the sole of the foot. It is by the sense of touch that one is enabled to adapt the steps to the inequalities of the surface over which he walks, and his progression, when once he acquires the art of walking, is

accomplished rather by reflex than by distinctly voluntary efforts. Thus the impression made upon the nerves of the sole of the foot by the surface upon which it rests, is transmitted along sensory nerves through the posterior roots of the spinal nerves to the posterior cornua of gray matter in the cord, and is here converted by cell action into a motor impulse, in obedience to which when transmitted to the muscles, motions are performed. If the stimulus be insufficient, and the influence of the will is required to complete the motion, the impression is transmitted upwards to the centres of consciousness and volition. Now, in the various locomotory actions, numerous muscles and groups of muscles are called into play, each bearing its proportionate share of the labor, in order that symmetry of motion may be attained.

If, therefore, there be any obstruction to or interference with the perfect transmission of every impression through the posterior gray substance of the cord upward, there must result more or less incoördination of muscular action, by means of which locomotion, and the maintenance of equilibrium even, become seriously impaired.

The patient has told us, moreover, that his bowels are constipated habitually, and his urine evacuated slowly and with an effort. The functions of these viscera are mainly reflex, or, at most, consensual, and would be rendered less active by any cause which would induce dysæsthesia or anæsthesia of their mucous linings, thereby rendering them less sensitive to the presence of their contents, and less responsive to reflect the influence of their impressions.

You have observed that the patient, in walking, kept his eyes fixed upon his feet, and lost his balance when they were closed or averted. This is done in obedience to the necessity felt to supplement the loss of the guidance of the touch by the sight, when the communication between the sensitive surface and the nerve centres is intercepted.

Other portions of the nervous system being excluded by the negative evidence, we are led by induction to the

posterior gray substance of the spinal cord as the seat of the morbid process, and to the conductors of sensory impressions as the diseased tracts.

Of the nature of the morbid process we may learn something from the history of the case. The man's occupation has required him to maintain a standing position uninterruptedly for ten hours daily during a number of years, entailing great muscular endurance and extraordinary drafts upon the spinal cord for nerve power to maintain that endurance. For the generation of this great amount of nerve force, a large blood supply was demanded, and we have hyperæmia; but this blood supply is the source of nutriment to all the tissues of the cord alike in their due proportions; now there are not only nerve cells and nerve fibres in the spinal cord, but there is connective tissue likewise, the neuroglia, the cement or matrix, in which these nerve cells and fibres are imbedded; and while there is a due proportion in the supply of nutriment to each of these, there is a disproportion in the waste, nerve cells and fibres sustaining retrograde metamorphosis under their condition of increased activity, to a much greater extent than the neuroglia, which therefore becomes the seat of a hyperplasia.

This view of the pathology of locomotor ataxia is sustained by post-mortem examination, in which the neuroglia is found indurated in scales and flakes, either aggregated, (*sclérose diffuse* of Duchenne,) scattered throughout the continuity of the cord, (*sclérose disséminée*,) or encircling the cord, (*sclérose corticale*.)

I shall detain you but a few moments while I indicate the best treatment for this condition, and in this, as in all other therapeutic theories, we must keep in mind the old maxim, *remove the cause*. Now, what was the ultimate cause, the *primum mobile*, of this long chain of morbid processes? Without doubt, long continued muscular effort. We will therefore remove the cause, and to protect him from the ill consequences of muscular exertion, which has proven so disastrous to him, will direct him to remain in bed, to rest continuously.

But we may do more than this ; we can diminish the blood supply to the cord, and to this end we will direct him to take one-third of a grain of nitrate of silver three times daily, and will, as the case progresses, substitute for it the fluid extract of *secale cornutum*.

Nov. 6th. The patient says he is much better ; is quite hopeful, and his walk bears visible testimony to his improvement.

CHICAGO COLLEGE.

Clinic by PROF. N. S. DAVIS, Oct. 16, 1875.

EPILEPSY.

A boy between seven and eight years of age ; robust in appearance ; face a little flushed ; countenance rather dull in expression, but otherwise looking well, was first presented. The mother of the boy gave his history, as follows :. A little more than two years ago, on a warm summer day, he came in from play excessively heated, took a hearty meal, and lay down as if going to sleep. In a few minutes she discovered him in a severe general convulsion.

The spasms ceased in a few moments, followed by fifteen or twenty minutes of apparent sleep, when he awoke and soon appeared to be well. He had no return of similar paroxysms during the next eight or ten months. After this they began to recur without any apparent cause, and have returned more and more frequently, until at present he has from one to six or seven attacks each day. Each paroxysm commences with sudden loss of consciousness, twitching of the muscles of the face and eyes, and general muscular rigidity, arresting the respiration until the face becomes purple or livid ; then relaxation commences, accompanied by irregular, noisy respiration, sometimes forcing frothy saliva from the mouth, but in a few moments the breathing becomes natural, the pur-

plish hue leaves the face, and after ten or fifteen minutes of quiet, he stands up as if waking from sleep, and appears quite well. He is often attacked in the midst of his play, and after recovering his consciousness, returning to it as if nothing had happened, and without any recollection of what had transpired during the paroxysm. The mother says his bowels move generally once or twice a day, and she thinks the urine natural in quantity, though sometimes scanty. His appetite for hearty food is voracious, and he is well nourished. She does not remember that he had any fits or other severe sickness in infancy.

When he begins to recover consciousness after his paroxysms, he rubs his nose and face, which has led to the idea that he had worms, but none have been discovered in his evacuations.

The Professor remarked that this was a good representative of the most common form of epilepsy, as it occurs in young subjects.

But all cases of epilepsy are not alike, either in their origin, progress or results. Some originate in irritation established in some part of the periphery of the sentient nerves, while others are caused by primary irritation in the brain. The first have been called *excentric*, and the latter *centric* or *concentric*.

Mechanical injury to the extremity of some sentient nerve, or its inclusion in the contraction of a cicatrix from previous injuries ; irritation of the alimentary canal from worms or indigestible food, and morbid conditions of the sexual organs, are the more frequent causes of excentric cases of epilepsy. Cases arising from the first mentioned cause may occur at any period of life ; those from irritation of the alimentary canal are limited chiefly to childhood ; while the last mentioned are most apt to be manifested near the period of puberty, and in females the paroxysms generally occur at the beginning or just after the close of the menstrual periods. In cases of excentric epilepsy, the mental faculties do not become

impaired as readily, or to so great a degree, as in cases dependent on primary morbid action in the brain ; and the leading object of the treatment is to remove the cause involving the peripheral portion of the sentient nerves. When such cause is capable of removal the prognosis is favorable. Those cases of epilepsy, however, which originate from a primary morbid condition of some portion of the brain, though most apt to begin in childhood, may originate at any period of life ; and, when once begun, the paroxysms generally increase in frequency the longer they are permitted to continue. In this variety of cases the mental faculties generally become impaired in direct ratio to the frequency of the paroxysms and the duration of the disease. When the disease commences in infancy, or early childhood, and continues until adult age, it not only reduces the mind to a condition bordering on dementia, but it so retards the nutrition of the anterior portion of the brain as to make the front part of the head both low and narrow. The case before us was probably one of centric epilepsy, and unless it can be arrested, will probably induce all the consequences, physical and mental, to which allusion has been made. The essential nature of the disease is involved in doubt.

That there is a morbid condition of the common motor centre in the base of the brain, either primary or reflex, there can be no doubt. It is probable that such morbid condition consists in a disturbance or increase of the excitability at first, and is therefore functional. But a continuance of such exaltation of the excitability, coupled with the congestion induced by the paroxysms, leads to slow but certain changes in the molecular movements concerned in the nutrition of the part. Hence, long continuance of the disease, generally develops both permanent alterations of structure and impairments of function. In the case before us, as in all similar ones, the indications for treatment are, to allay the morbid excitability of the nervous centre to such an extent as to prevent the

recurrence of the spasmodic paroxysms, and to re-establish healthy nutrition.

Until a recent period, a long list of remedies were empirically used for the cure of epilepsy. The more important of these were nitrate of silver, sulphate of zinc, sulphate of copper, arsenical preparations, and belladonna.

But since the efficacy of the bromides, as sedatives to purely nervous excitability, has become generally known to the profession, they have well nigh superseded all other remedies in the treatment of this disease. It is perhaps true that they may have come to occupy the attention of the profession too exclusively, and to be used too indiscriminately in these cases. In such cases as the one now before the class, exhibiting fullness and richness of blood, voracious appetite and active digestion, it was claimed that digitalis, ergot, and calabar bean, might be useful as adjuvants to the bromides in overcoming the morbid excitability.

The lecturer also called attention to the great advantage of properly regulating the diet of such patients.

He advised the entire omission of meat, as well as tea, coffee, and all alcoholic drinks, allowing the patient only the free use of milk, farinaceous articles, vegetables and fruit. A fair amount of habitual out-door exercise, freedom from over-excitement and mental anxiety, and thorough ventilation of the sleeping room, were also mentioned as matters of importance. Not only were all these things represented as important in the treatment of the disease, but that they must be faithfully pursued for many months, to secure permanent curative results. The following prescription was ordered for the patient, to be given in doses of one teaspoonful each morning, noon, tea-time and bed-time: $\mathcal{R}$ Potassii Bromid., $\mathfrak{z}$ vi; Tinct. Digitalis, $\mathfrak{z}$ iv; Syrup. Prun. Virgin., $\mathfrak{z}$ jss; Aq. fluv., $\mathfrak{z}$ iv. M.

If the paroxysms become very much less frequent, the number of doses were to be reduced to three per day. The mother was enjoined to regulate the diet, exercise,

etc., in strict accordance with the foregoing recommendations, and to bring the patient back in two weeks for further instruction.

A NEW OBSTETRIC FORCEPS.

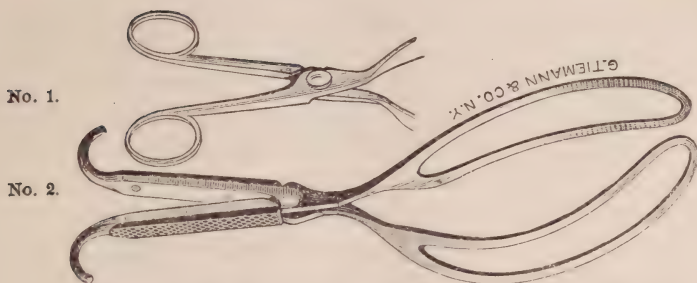
Extract from a paper on the Second Stage of Labor; read before the Chicago Society of Physicians and Surgeons, Oct. 25, 1875.

By EDW. WARREN SAWYER, M.D.,

LECTURER ON OBSTETRICS, RUSH MEDICAL COLLEGE, CHICAGO.

Till this time, I have scarcely used another instrument than the long, double-curved forceps of Simpson: preferring a skilled acquaintance with a single instrument to an imperfect knowledge of many; and because the long forceps are capable of almost all applications. I have always wished, however, for a less bulky instrument, which could be applied to the frequent cases where it is wished to disengage the head from the inferior strait, or to lift it from the perineum; but the ordinary short forceps are not more graceful, and scarcely more easily applied, than the long. Recently, my friend, Dr. Wm. H. Newman, of Denver, Colorado, has given us an instrument which, I must say, does seem to fill the want.

This graceful little instrument is, truly, the baby forceps; it is so small it can be easily carried in the pocket, its entire length being but nine and one-half inches; the length of the handle to the lock is three inches; the length of shank from lock to curve is one inch; the blade is uniformly one inch wide and one-sixteenth of an inch in thickness; it has a pelvic and head curve; the chord of the arc represented by the head curve is six inches in length; the instrument weighs two and three-fourths ounces. The short scissors-handle and the delicate structure of the instrument, give it a less formidable appearance than that of any other forceps with which I am acquainted.



1. Newman's Handles. 2. Sawyer's Handles, with Newman's Blade.

With the thumb and a single finger, which is all that is required in its use, this instrument possesses no compressing power, other than that the uterus invokes through its blades; so that it may be pronounced a safe instrument. I think it no exaggeration to say that it will be impossible with this forceps to do harm, either to the mother or foetus. No operation in obstetrics, not even uncomplicated catheterization, is as simple as the application of this instrument, which can almost be done without the knowledge of the woman. Obviously its use is limited to those cases I have already indicated, viz., when the head rests upon the perineum, or, at most, is in the lower strait.

No one has yet used the instrument as extensively as the inventor, from whose recent letter I extract the following: "My forceps surpass my own expectation. I was a little disappointed in the first two or three cases—I was awkward with the button lock; but now that I have learned how and when to use them, I find them all right. * * * I have had about twelve cases of labor since I received the forceps, and have used them in nine of these cases. I do not now sit by a slow case, giving ergot, encouraging the patient and assuring the friends around, that all will be right after a while, but I apply the forceps and deliver in from ten to thirty minutes. I am sure that, in at least two of these cases, two or three hours would have been required for the completion of labor."

It is most important to be assured that the instrument in one's hand is perfectly safe; but, in this instance, the usefulness of the forceps is somewhat narrowed by the fact that it has no compressing power; for this is often essential power. To correct this, and at the same time to increase its power as a tractor, I have added this serrated handle, which is curved at the extremity, like the Hodge handle. I have also added the Denman lock, which is more simple and easier of manipulation than the English button lock.

The execution of these changes I have entrusted to the Messrs. Tiemann & Co., of New York, who have accomplished the result with their usual skill.

The danger of keeping flowers and fruits in sleeping rooms is anew illustrated by the following instances, reported by Dr. Breitter, (*Wiener Med. Presse*, 43, 1875): A gentleman had the unhappy idea of making of the branches of an oleander some sort of an alcove in which to sleep; next morning he was found dead. A grocer and his clerk went to sleep in a room in which three boxes of oranges stood, and they were dead by the next morning. A clerk in a store who was to watch at night, laid down with a bag of sassafras under his head, he likewise was found dead in the morning. Another gentleman having some hyacinths in his room, got the most violent headache and felt so drowsy that he could scarcely restrain from sleeping. He at once put the flowers out of the room, opened the windows, and soon after felt easier.

FOR THE REMOVAL OF COMEDONES FROM THE FACE.—Gutceit recommends the washing and rubbing of the skin with diluted liq. ammoniæ, one teaspoonful to a wine glassful of water.—*Memorabilien*, xx, 7.

Summary of Progress in the Medical Sciences.

I. OBSTETRICS.

1. *On the Management of the Lying-in-Woman.* HIME. (*Obstetric Jour. of Great Britain and Ireland*, Oct.)

The old theory, which represents the lying-in-woman as being in a state, similar to that of a person after an amputation, the uterus being compared to the part operated on, is unscientific and untenable. Parturition is a physiological process—the fulfillment of a natural function, and has no analogy with an operation which is an interference with function. Amputation, whether the result of disease or accident, involves consequences which have no analogue in the process of parturition. The uterus after labor is no more comparable to a stump after amputation, than the uterus after or during menstruation. After natural labor there is nothing comparable to the collapse succeeding a major amputation; there is no fever, no suppression of secretions, no suppuration, or, if pus be present, it is not derived from the uterus at all, but from the vagina or external genitals, in the great majority of cases. The insignificant rise in temperature from 0.5° C. to 0.8° C. (the former in multiparæ, the latter in primiparæ) is due to normal physiological and not to morbid action, being the effect of muscular exertion, increased activity of the lungs, liver and other organs, when relieved from the pressure of the gravid uterus; and is only fleeting. Milk fever is far more talked of and written about than seen, and is of rare occurrence. The rise of temperature which accompanies the commencement of mammary activity, is slight, temporary, and unaccompanied by mental depression or constitutional disturbance of any kind. Operations performed immediately after labor will yield kindly.

A decided alteration, then, is needful in the common mode of treating lying-in-women as patients—confining them to bed for ten or twelve days on a low diet—the ordinary puerperal dietary being such as would certainly not be given to any patient after amputation. Water gruel, barley water, tea and dry toast should be abandoned for milk, eggs, good soup, chickens and other digestible meats, to be given from the first, and, of course, in quantities suitable to the conditions of individuality, want of exercise, etc. Stimulants are decidedly injurious, except in special cases. It is often urged, that, as a large amount of waste uterine tissue has to be got rid of, low diet should be adhered to; but milk has also to be secreted, and, anyhow, health and vigor will promote excretion and the performance of all vital functions better than a state of debility. Opiates, ergot and other drugs should only be given under necessity. The child should be applied as soon as the mother's state permits; if there be no milk at first, only for a moment or so, to encourage its secretion and the

involution of the uterus. The binder is more of an *ethanasia* than a benefit after the first twelve hours, but not so the early removal into a fresh bed and room, if possible, and this may be done within forty-eight hours. The woman may sit up in bed for a short time from the first, a continual maintenance of the recumbent posture for ten or twelve days being as injurious as it is unnecessary; and most patients may be on the sofa on the fourth or fifth day. Above all things, the medical attendant should see that his directions are carried out, and not trust they will be so, especially as to the removal of soiled linen, etc.; not that its presence, any more than the neighborhood of privies, want of ventilation, etc., will, *per se*, develop metria any more than typhoid fever: otherwise eight or nine-tenths of lying-in-women must inevitably suffer from it, a result equally certain if medical men could convey the germs of disease with them as readily as is assumed. Cleanliness and ventilation always tend to preserve health and check disease, but they are no more needful for the lying-in-woman than nourishing food. After natural labor a woman is not in a diseased state, and the maintenance of health and vigor will be the most successful means of averting all risks.

2. *Management of Third Stage of Labor.* WALLACE. (*Obs. Jour. of Great Britain and Ireland*, Oct. 15.)

The position of the placenta is most frequently on the middle zone of the uterus, next on the fundal zone. According to its position is the mechanism of expulsion. Smellie and others knew the true mechanism of the expulsion and delivery of the placenta, which has recently been brought to the notice of the profession by Matthews Duncan, Lemser, Caseaux, Leishman, and others, in contradistinction to the descriptions given by Baudelocque, Schultze, etc. The routine practice of the binder, ergot, opium and the cordials after delivery, was condemned. It was especially shown that the binder, as applied with pads, converted an abdominal organ, as is the uterus at that stage, into a pelvic one, and hence caused, instead of prevented, bleeding; and was one of the main factors in producing subsequent uterine trouble, in the way of flexions and displacements.

3. *Medico-Legal Aspect of Abortion.* LEBLONDE. (*Annales de Gynécologie*, Aug., 1875.)

From eleven cases the author deduces the medico-legal value of the integrity of membranes in abortion occurring during the early months of pregnancy.

(a.) When abortion occurs "en bloc" (embryo within sound, unbroken membranes), it is probably spontaneous; or, at least, not produced by agents which determine the expulsion of the ovum without implicating the membranes.

(b.) When the membranes are ruptured, but healthy, in all probability abortion has been provoked.

(c.) When the membranes are pathologically altered, no conclusion can be derived from the expelled product, though spontaneous abortion has probably resulted from disease of the ovum.

II. GYNECOLOGY.

1. *Hypertrophy of the Vaginal Portion of the Cervix.* DUPUY. (*Le Progrès Médical*, Oct. 23.)

A primipara, aged 19, had, after delivery, hypertrophy of the cervix, whose projection beyond the vulva was as large as an apple. It was red and ulcerated, the ulcer being as large as a quarter of a dollar. Digital examination revealed a species of callous induration which marked the junction of the body and neck of the womb, the former being of normal size, while the latter was seven centimetres in length.

Under anæsthetics, the hypertrophied portion was removed in about a quarter of an hour, by the *Écraseur*, and with the loss of but a few drops of blood. There was no obliteration of the cervical canal, though no measure, were taken to prevent it.

Dupuy refers to a similar operation performed by Warren, of Boston, (*Am. Jour. of Med. Sciences*), but considers the details given of the latter case "too scanty and too obscure to be available in a serious discussion of the subject." As is too common with many French writers, he exhibits a lack of the politeness which is supposed to be characteristic of his nation, by misspelling the name of the American surgeon.

2. *The Genu-Pectoral Posture and Pneumatic Pressure in the Treatment of Uterine Displacements.* HOPKINS. (*Atl. Med. and Surg. Jour.*, Nov.)

The author having treated six cases successfully by the aid of Campbell's pneumatic self-repositor, is enthusiastic regarding its value. "Indebted solely to Dr. Campbell," he says, "for my success in the treatment of the cases here reported, it becomes my duty, while it affords me pleasure, to publicly acknowledge the same, and return him my sincere thanks for the valuable service rendered."

3. *Iodoform in Vaginismus.* TARNIER. (*Jour. de Méd. et de Chir.*, Sept.)

The hyperæsthesia was so extreme in a married woman, thirty-two years of age, married seventeen years, that walking was painful, coitus a torture, and the contact of a stylet with one of the labia minora elicited a cry of anguish.

Insensibility of the vulvar orifice was procured by dusting iodoform over the ostium vaginæ and lesser labia. The irritability disappeared for two days, but returned in a milder form. Then the dressing was repeated with a tampon, dusted over with iodoform, inserted between the labia. The results were exceedingly satisfactory, and Tarnier was hence led to recommend the same application in a case of fissure of the anus, which had been treated by astringents, narcotics and dilatation. The applications resulted in cure of the ailment at the expiration of ten months, relief being had much earlier.

4. *Hydrate of Chloral in Uterine Carcinoma.* FLEISCHER. (*Bulletin Général de Thér., Méd. et Chir.*)

The vagina having being cleansed by injections of water, cotton is applied to the carcinomatous surface, wet with a solution of chloral, eight parts to one hundred. The application is renewed every two hours, and, in two or three days, there is less pain and no fetidity of discharge. Administered by the rectum, its effects are completely under control and more prolonged; while it is less constipating than morphia.

5. *Rupture of Uterus—Recto-vaginal Fistula—Spontaneous Recovery.* FONTAINE. (*Virginia Medical Monthly*, Oct.)

A woman, 28 or 30 years of age, had contracted pelvis, and after many hours of labor, F. found the head had receded far up in the pelvic cavity. The breech was felt through the abdominal walls, with the feet and legs impinging upon the maternal liver. A rent had occurred in the right anterior quarter of the fundus uteri, which grasped the middle of the body of the fœtus. Craniotomy was immediately and rapidly performed, and extraction effected with pressure from above. Two-thirds of the placenta was removed from the abdominal cavity.

During the operation, fæces gushed into the vagina from a fistulous rent just below and a little to the left of the sacral promontory. It remained pervious, with passage of fœcal matter, for several weeks, but on the ninth week the speculum disclosed a rough puckered cicatrix, in the form of a raphé, one inch and a quarter long.

The cure was complete, after most skillful and judicious treatment—rest, carbolic acid injections, medicines to ensure solubility of the bowels, and a nutritious diet.

6. *Laceration of Perineum, Sphincter Ani and Recto-Vaginal Septum.* STERLING. (*Med. and Surg. Reporter*, Nov. 20.)

This accident having occurred, three deep-seated, double ligatures were passed with a curved needle, twenty-eight hours after delivery, the bowels being well evacuated. One was at the posterior fourchette, one at the verge of the anus, and a third midway between the two. Three superficial stitches were also taken. Opiates were administered to secure control of the bowels, but the escape of gas through the rent necessitated passing a silver tube into the rectum, which obviated the difficulty.

In four weeks the cure was complete, the operator taking the precaution to pack the vagina with sponge on the occurrence of the first stool, to avoid strain upon the new septum.

7. *Stricture of the Female Urethra.* NEWMAN. (*Am. Jour. of the Med. Sciences*, October, 1875.)

Of four cases, one occurred at the meatus; another, three-fourths of an inch deeper; still another, seven-eighths of an inch; and a fourth case in-

volved nearly the entire urethra. One was due to syphilis, one to irritating injections in gonorrhœa, one to granular urethritis, and the last to general urethritis occupying the entire canal. These cases were relieved by electrolysis—positive pole in the palm, and a metallic bougie in the urethra, connected with the negative pole. From four to eleven cells of Drescher's battery were used. In one case of double stricture a "carneous plug" was expelled from the urethra, to the great relief of the patient.

8. *Chlorosis with Aplasia of the Female Genitals.* FRAENKEL. (*Archiv. für Gyn.*, vii.)

A woman of strong constitution, twenty-six years old, was chlorotic and had never menstruated. There was marked decrease in the number of red blood globules, but no heart lesion or disturbance.

Her breasts were infantile; her pelvis masculine and contracted in all diameters; the labia majora and hymen were wanting, while the nymphæ were imperfectly developed. The uterus was small, its parietes thin, and ovaries undistinguishable.

Another girl, twenty years old, had scarlatina and cholera in childhood, with first menstruation (profuse) at seventeen, accompanied by fainting, dyspnœa and palpitation. Pallor of the face and cold extremities were marked. There was apical pneumonia with small heart; thin, thready pulse, with a weak impulse. The genitals were those of a girl seven or eight years old; mons without hair; small, infantile breasts and womb.

Fraenkel agrees with Virchow that chlorosis often accompanies genital aplasia, but not always defective development of the heart and aorta. It may result from the aplasia, but is permanently curable when the heart is not of small size. Menorrhagic chlorosis occurs with defective or excessive development of the sexual organs.

III. OPTHALMOLOGY AND SURGERY.

1. *Two Cases of Aneurisma Arterioso-Venosum in the Orbit.* RIVINGTON. (*La France Médicale*, No. 71.)

In a recent meeting of the Med. and Chir. Society of London, Walter Rivington reported the following case: In July, 1873, a young man was admitted to the London Hospital with a fracture of the skull. Six weeks later he began to hear a blowing noise in his head; the eyeball became slightly prominent, and then a pulsating tumor appeared between the globe and orbital border, chemosis, œdema of the lids and paralysis of the muscles of the eyes ensued. After an ineffectual trial of digital compression of the carotid, and after an unsuccessful injection of perchloride of iron, the carotid was ligated. The patient recovered, but the sight of the eye was greatly damaged by a superficial ulceration of the cornea that came on a few days after the ligation. The doctor diagnosticated an

aneurisma arterioso-venosum, caused by a communication of the internal carotid with the cavernous sinus in consequence of the fracture of the skull.

Soon after this, P. Lansdown published (*British Med. Journal*, June 5,) a similar case. A laborer had the inner half of his left upper lid cut across, by a piece of an exploded seltzer bottle. L., who at once saw the patient, found a bleeding artery and the lid distended by copious effusion of blood into the cellular tissue; the hæmorrhage was arrested by uniting the borders of the wound with a suture, and the patient appeared to be doing well. After six weeks, however, the eye had become somewhat protruding, the lids were swollen and the veins of the conjunctiva appeared tortuous and dilated. And several weeks later a small pulsating tumor was discovered at the inner canthus, below the cicatrix of the upper lid. Over the whole globe one could hear a bruit which disappeared on compression of the carotid. The sight was intact. An instrument was applied by which the aneurism was pressed against the inner wall of the orbit; but this treatment had to be abandoned on account of the pain caused by the compression. From the fact that the retinal veins were dilated like the conjunctival vessels, several surgeons were led to diagnosticate an aneurism in the depth of the orbit, and advised the ligation of the carotid. But L. preferred the immediate ligation of the aneurismal artery, considering this operation more satisfactory and less dangerous than the ligature of the carotid, even if he had to enucleate the globe to accomplish his purpose. An incision made into the old scar, exposed a small, round, pulsating tumor of the size of a large pea. A large tortuous vein emerging from the depth of the orbit, clung tightly to the anterior surface of the tumor. A communication between the nasal artery and vein had given rise to the deformity of the eye. The artery found, though with considerable difficulty, and separated, was ligated at both sides of the aneurism. On the fourth day the sac was closed, and at the end of one week the globe had recovered its normal position. And now, one year after the operation, the conjunctival as well as the retinal veins show a normal calibre and no difference between the two eyes can be noticed.

2. *Miners' Nystagmus.* TAYLOR. (*Am. Jour. Med. Sci.*, Oct., 1875)

Dr. Chas. B. Taylor describes (*Lancet*, June 12, 1875,) under this name a peculiar malady of which the mines in the neighborhood of Nottingham have furnished him several examples. It is characterized by peculiar oscillating motions of the eyeballs, and has been observed only in adults, and, independent of other ocular defects, in men employed in coal pits. The oscillating movements are caused by alternating contractions of the recti or oblique muscles, and are horizontal or rotatory. This affection appears to be analogous to writers' cramp or similar affections, and is caused by an overtasking of the muscles of the eye. By a great and sustained effort of the patient to see in an imperfect light, they are overburdened, in the course of time give way, and at last, whenever called upon, become, as it were, agitated and

fluttered, escape from the control of the will and perform irregular motions. As a rule, change of occupation and working in a good light are all that is necessary to effect a cure.

3. *Extirpation of the Larynx.* (*Am. Jour. Med. Sci.*, Oct., 1875.)

The first extirpation of the larynx in man, was performed by Billroth (Vienna), in December, 1873; he was followed by Heine (Prague) and Moritz Schmidt (Frankfort). And on July 21st last, Prof. Von Langenbeck (Berlin) excised the larynx with the hyoid bone and a portion of the tongue, pharynx and œsophagus for cancerous infiltration of the parts mentioned. The patient, aged fifty seven years, was kept completely unconscious for two hours, the chloroform being administered through a canula introduced into the trachea below the larynx; above the canula the trachea was plugged with an air-bag, so as to prevent any downflow of blood into the bronchi. Forty-one arteries were ligated, including both external carotids. After the operation the immense wound was simply closed by compresses soaked in a one-third per cent. solution of salicylic acid, and no attempt was made to bring the skin together with sutures. Up to July 28, the patient did well and had no fever.

4. *Treatment of Diphtheria.* THEO. SCHUELER. (*Berl. Klin. Wochenschr.*, 1875, No. 40.)

The writer treated 79 cases, and in order to ascertain the effect of different remedies, he successfully tried chlorate of potassium, carbolic acid and salicylic acid. He lost six patients of 41 treated with chlor. potass., one of 23 treated with carbolic acid, and seven of 15 treated with salicylic acid. These results do not speak in favor of the salicylic acid.

5. *How to Prevent Chloroform Asphyxia.* DR. J. FLEIBERG. (*Berl. Klin. Wochenschr.*, 1875, Sept.)

His plan is to dislocate the inferior maxillary bone forward whenever any asphyxial symptoms make their appearance. The best way of producing this dislocation is to stand behind the reclining patient, put both thumbs behind the symphysis and the index fingers on the posterior edges of the rami of the bone, then grasp the maxilla firmly and drag it directly forward. If the patient be under the influence of the anæsthetic—and then only it is necessary to resort to this procedure—the condyle will move forward with a perceptible motion and the entire bone is displaced. As soon as this is done the patient takes a long breath and respiration proceeds without any further difficulty as long as the parts remain in the same position. The author has employed this procedure in more than a thousand instances and has never failed to achieve the desired purpose, namely, the use of chloroform without any unpleasant complications. He believes that the root of the tongue and the epiglottis are dragged forward and thereby the occlusion of the larynx and the

consequent asphyxia which is due to the weight of the tongue, are obviated.

The same method has been in constant use by Esmarch since 1866; and Langenbeck employed it constantly during the late Franco-German war, and never lost a case from the effects of chloroform.

6. *A New Method of Controlling the Velum Palati in Rhinoscopic Exploration.* PH. S. WALES. (*N. Y. Med. Record*, 1875, No. 48.)

After giving a brief résumé of instrumental and other means which have been devised (by Czermak, Turck, Voltolini and others,) to control the movements of the palate, the writer continues:

"My principle consists essentially in overcoming the contraction of the palatal muscles by elastic force, and the means of fully carrying it out will be found in an india-rubber cord. The simplest method of putting it in position after having selected one of such a diameter—two millimetres will do—as will readily pass through the inferior meatus into the pharynx without any instrumental assistance, is the following:

"One end is introduced into each nostril, until they both reach the lower portions of the pharynx. At this moment the patient is directed to cough, if the presence of the thread has not already excited this movement; the force of expiration will pretty surely project them into the mouth, when they may be apprehended with the fingers and drawn externally until the middle portion of the cord, which is external, is arrested against the nasal septum. Gentle traction is continued until the soft palate is well drawn forward, when the threads are passed up over the ears, and downwards beneath the chin and there tied, or they may be held by the patient himself. At any moment after the ends of the elastic are secured at the point indicated, the tension of the cord and correlative palatal pressure may be increased by seizing the threads as they pass out of the mouth and gently drawing them forward, until the palatal contraction is entirely overcome, and the area of the pharyngobuccal space ample enough to receive the largest mirror. It will sometimes be observed that where there is very much irritability, the velum palati momentarily contracts, especially at the time when the mirror is introduced, but soon yields to the elastic force of the thread. Should any impediment whatever exist in the nostrils, that the cord cannot be passed by itself, the little instrument I have described below works admirably as a cord carrier. Of course, an expert hand may make use of any instrument that may chance around a catheter, slips of whalebone, or wood.

"The device mentioned above is simple, cheap, and easily managed. It is a thin lamina of soft metal, six inches long and less than an eighth wide, mounted at each extremity with a small ring of an amplitude a little greater than the elastic cord, which having been passed through them, is tipped with small, smooth, oblong fragments of lead. When the instrument is to be used, the cord is drawn through the rings until one of its tips comes against the corresponding ring; slight tension of the elastic will retain the two in contact while the point thus formed is being conducted along the inferior meatus. When the metallic point reaches the posterior wall of the pharynx, the elastic projecting externally is pulled through the exterior ring, and made quite slack so that the instrument may be withdrawn from the nares, leaving the cord in position; a similar proceeding is then practiced upon the other nostril.

"The metallic points of the cord, now in the pharynx, may be easily thrown forward by coughing or hawking, and seized with the fingers and drawn externally. The metallic lamina, on account of its flexibility,

will thus be bent as a bow over the bridge of the nose, and out of the way.

"The discovery of means of amplification of the pharyngo-buccal aperture has occupied my attention for several years. I have had only moderate success until the discovery of the devices I now bring to the notice of the profession.

"Its chief merits are the simplicity of the apparatus, and the facility with which any professional person may employ it in exploring the posterior nares and the pharyngeal cavity. The cord itself may well take the place of Belloc's sound in any case wherein it may be necessary to conduct a thread through the nostrils, as in plugging the nares for epistaxis. Here, however, I employ a little bulb of rubber at the end of a hollow rubber cord, and after the bulb is placed in position through the fauces, it may be inflated by blowing air through its open extremity which projects exteriorly from the nose."

7. *Osteitis of Pearl-Tumors.* C. GUSSENBAUER. (*Langenbeck's Archiv.; Allg. Med. Centralz.*, 1875, No. 85.)

This disease, first described by English, was observed in Billroth's clinic, by C. G. on six young men who had been working on mother-of-pearl. They were all six yet in the period of development; and those who continued their occupation were often subject to a recurrence of the disease. The seats of the malady were the lower jaw, scapula, humerus, ulna, radius, femur, fibula, os calsis, cuboideum, and metatarsal bones. The osteitis begins when the youth has been working in the factory for several months. First a slight fever occurs, and a pain which is located precisely in the very seat of the inflammation. After a few days a periosteal swelling appears, which, at first soft, elastic, sometimes fluctuating, and very tender, may afterwards assume the hardness of bone. The tissues covering the affected bone become swollen a few days after the appearance of the periosteal tumor. It is a significant characteristic of these tumors that they are seated in the long bones, always near one or the other end of the diaphysis and never occupy the middle or the epiphysis. The tumefaction gradually increases in size, yet it never terminates in suppuration, but is reabsorbed under the local use of mercurial ointment, warm poultices, and the internal administration of iodide of potassium. The writer ventures an explanation of this peculiar disease and attributes it to an embolic process: the workmen are employed in small compartments, the air of which is filled with the dust of mother-of-pearl; this dust (containing 93.5 per cent. of carbonate of lime and 6.5 per cent. of organic matter,) is inhaled into the lungs, from there it may get into the circulation, and finally happen to stop in the small nutritive arteries of the bones, giving rise to thrombosis infarctus and consecutive osteitis and periostitis. As to the inhalation of the dust, he shut up some dogs for a few days in a box, the air of which was kept loaded with the dust of mother-of-pearl. When these dogs were killed after some time, tubercles (the largest of the size of a wheat grain) of such dust were found in the parenchyma of the lungs.

8. *Results of Antiseptic Treatment.* A. BARDELEBEN. (*Centralbl. f. Chir.*, 1875, No. 47.)

In a paper read before the Berlin Med. Society, Prof. Bardeleben gave an account of 387 cases treated antiseptically during the past three years. Among these cases there were 134 large abscesses, 56 extensive phlegmonous infiltrations, 76 major amputations, 21 major excisions of joints, 23 extirpations of large tumors, 77 complicated fractures. The result of the treatment was that none of the patients died of pyæmia or septicæmia, and that erysipelas though still appearing occasionally, seemed to be of a milder character.

9. *A Rare Tumor of the Mesentery.* A. WEICHSELBAUM. (*Virchow's Arch.* LXIV; *Centralbl. d. Chir.*, 1875, No. 43.)

Between the layers of the very fatty mesentery of a man, 80 years of age, a tumor of the size of the palm of a hand was found. A fluid which proved to be chyle, by chemical and microscopic examination, ran from the cut surface as though it were oozing from a sponge. The tumor showed the structure of a cavernous angioma, but its containing chyle matter proved that its cavernæ communicated with the lymphatic vessels of the mesentery. Originally the neoplasm was most likely a lipoma, in which the cavernous lymphatic spaces were gradually developed; its periphery, at least, was constituted of adipose tissue.

10. *Encephaloid Cancer.* C. V. MOLTRAM, M.D. (*Transac. Kansas Med. Soc.*, 1875.)

In Aug., 1872, a girl of 14, "bumped" her nose against a table. it soon recovered, and was "bumped" against a baby's head in Sept., 1872; a slight swelling followed and remained. In Dec. it grew worse, and by New Years the nose, from the end of the nasal bone to the os frontis, had greatly enlarged. The superior and middle turbinated bones were involved, filling the nostrils. The disease progressed most between the eyes, which were forced forward and outward. By February, 1874, the space between the inner canthi was $3\frac{1}{2}$ inches. By June, the tumor extended from the tip of the nose upward 9 inches, laterally 9 inches, and antero-posteriorly 3 inches. The eyes were forced out of their sockets upon the temples, yet they retained the sight, and the lachrymal ducts were pervious. A month or two previously an abscess had formed in the left mammary gland and opened spontaneously without pain. Her appetite and digestion were good to within a few days of her death, when diarrhœa commenced. She slept well. The parotid, submaxillary and lymphatic glands of the neck became enlarged late in the case, and a tumor appeared near the sternum between the first and second ribs, of the size of a turkey's egg, and she had a slight cough. She died October 1st. The tumor was found made of "apparently elastic fibrous tissue and yellow-white brain-like substance," which fluctuated easily. Weight 5 lbs. The tumor near the sternum communicated with larger tumor within

thorax. The right lung was *solidified* with cancerous deposit; the left lung was more than half full of the same deposit. The mesentery was studded with hard deposits. Microscopic examination revealed cancer cells in all the morbid parts.

IV. SYPHILOLOGY.

1. *Transmission of Syphilis between Nurses and Nurslings.* TAYLOR. (*Am. Jour. of Obst. and Diseases of Women and Children*, Nov., '75.)

This paper is written in the lucid and practical manner, which is an admirable feature of the style of the author. The distinction between specific and other lesions of the mouth in infants is thus given: In syphilis, the coryza, which most constantly accompanies the mouth lesion, is much more severe, and the snuffling much greater, and there will be observed a tendency for the lesions to develop at the angles of the mouth, and there to induce ulceration, which may extend to the integument. This is important. In syphilis, the focus of the inflammation is developed upon the tongue, the fauces and the region named; whereas, in the simple form of sore mouth, the tissues generally, except the throat, are involved and the gums are affected, while they most constantly escape in syphilis. Again, in the simple form of trouble, the sulci between the lips and the teeth are often implicated, and in syphilis it is usual for them to escape.

Taylor also calls attention to two important practical points: 1. The danger of mediate contagion, in children's hospitals and asylums, from the use of an artificial nipple upon which the secretion from the mouth of a syphilitic infant might be retained; and 2. The danger of pronouncing the breast of a nurse free from syphilitic lesions, so long as there is a possibility of the existence of a chancre *in the stage of incubation* upon or near the nipple.

Taylor's article should be placed in the hands of every physician in the country, who is connected with a children's asylum or hospital.

2. *Ulcerating Syphilide and Lupus Vulgaris.* DUHRING. (*Med. and Surg. Reporter*, December 4.)

The distinction between the two diseases is thus made, in a clinical study of a patient affected with the first named disorder:

The recognition of the non-inflammatory character of the lesion, excludes a large class of diseases in diagnosis. It is a neoplasm, and must be due either to lupus vulgaris or syphilis. Were it lupus, we should expect to see some signs of this deposit in the form of papules and tubercles, which are wanting. There would be also dry, flaky desquamation; but the skin is free from scales. The infiltration would not be uniformly distributed (as it is); it would manifest a broken appearance, the sound skin showing between the smaller patches which always go to make up the larger tracts of lupus. On the other hand, the uniform infiltration, the elevation of the

patch, the appearance of the ulcers and their tendency to communicate subcutaneously, the distinct semi-circular lines of demarcation surrounding the patch upon the side of the head, the absence of pain, and other symptoms, all point to a late syphilide. Amelioration and aggravation of the condition have been undoubtedly produced by repeated courses of iodide of potassium. Duhring recommended the use of the latter remedy, in combination with mercury and dilute mercurial ointment locally.

3. *Laryngeal Mucous Patches.* ISAMBERT. (*Le Progrès Médical*, Oct. 9.)

The name should be exclusively applied to lesions which have morphological characters identical with mucous patches of the genitals, mouth or velum. They should be irregularly round or oval; should project slightly above the surrounding tissue; should be circumscribed by a border a little more salient than the centre, which is depressed. The surface is of a grayish-opaline hue, is delicately folded or swollen, and surrounded, in recent lesions, by a more or less intensely defined inflammatory zone, of a brownish hue at or adjacent to the external integument, carmine-colored, when resting upon an internal mucous surface. It rapidly loses these features when it ulcerates, and, in order to be fully recognized, should at least exhibit the elevated rim, the folded aspect and the opaline shade. The lecturer agreed with Fournier, Duploy and Ferras, who consider that this typical form is rarely encountered in the larynx: and adds that in exceptional cases it has been noted where there was no specific diathesis.

The constant temperature and continual humidity of the expired air observed in the larynx, render its lesions analogous to those of the skin, which are subjected to continued cataplasms or indefinitely prolonged vapor-baths. Hence the rarity of recognition of typical mucous patches in this region. Subjected to these conditions their features are altered. The most marked of the cases observed, have been occasioned by coincident laryngeal syphilis and phthisis.

4. *Syphilitic Laryngeal Vegetations and Pulmonary Gummata.* MAUNOIR. (*Le Progrès Médical*, Oct. 9.)

A laundress, 40 years old, had cutaneous syphilides, aphonia, dyspnœa requiring tracheotomy, and pulmonary symptoms, resulting fatally.

The inferior vocal cords were thickened, but not ulcerated. Above them were three or four polypiform, reddish vegetations, nearly as large as peas, which projected beyond the free border of each vocal cord. (Hence the sinuous chink observed, ante mortem, by the laryngoscope.) The tracheo-bronchial membrane was reddened, and smeared with viscid adherent mucus.

Small, rounded, yellowish-white tumors, with a fibrous zone at the periphery, were found at the summits of the lungs—especially the right—imbedded in sound pulmonary tissue. Open-mouthed vessels and bronchioles were visible in the centre of each. Some were soft and caseous. One was connected with a small vomica. Some were firm, opaline and

semi-transparent. They differed from tubercles, in their definite outlines, their intact pulmonary bed, and the patent central canals—vascular and bronchial.

5. *Syphilitic Liver*. THOMPSON, HENRY. (*Lancet*, November, 1875.)

Post mortem, the viscus was found to be displaced downwards; bands of adhesion united it to the parietal peritoneum, all vascular, the vessels running from the liver to the abdominal wall. The hepatic lobes were broken up by deep furrows into a multitude of irregular knobs, the entire surface being more or less granular. The capsule presented unevenly distributed thickenings. There was also well marked fibrous thickening at the bottom of the furrows, and along the course of the larger portal canals; and here and there were seen small tracts of caseous character in the midst of the denser material. The liver substance throughout was permeated and toughened by this fibrous change, so that it was nearly impossible to distinguish any individual lobules—the general appearance being that of fine granules of various sizes and shades of color, interspersed with large masses of a dark-green tint. The organ weighed $56\frac{1}{2}$ oz. There was no dilatation of the interstitial bile ducts; in fact, their presence could hardly be ascertained. The hepatic and common bile ducts were also free.

Iodide of potassium utterly failed. Sir Henry Thompson adds, with great wisdom, that when the characteristic changes in the liver are well pronounced, iodide of potassium will no more undo the mischief than it will abolish a cicatrix.

6. *Rapidly Malignant Syphilis*. GUIBOUT. (*L'Union Méd.*, 61, 62, 1875.)

Syphilitic rupia with continuous fever, great prostration and weakness, serious functional disorders, and extensive ulceration, all occurred within six weeks of the primary lesion, without the intervention of the ordinary milder syphilides.

These cases are sufficiently common to require attention. They usually result from unrecognized or mal-treated chancre.

7. *Syphilitic Placenta*. MACDONALD. (*Obst. Jour. of Great Britain and Ireland*, Oct.)

It may be mistaken for fatty degeneration (Kilian and Robin), but it is easy to recognize constitutional syphilis in a dead-born foetus, even if macerated. There is a band of tissue between the bone of the shaft and the cartilage of the epiphysis of the long bone, in a condition of inflammatory irritation. It is bounded by very irregular outlines, both towards the cartilage and towards the true bone, and consists, according to the advancement of the lesion, either of (a) hypertrophied cartilaginous cells, greatly increased by proliferation and prematurely infiltrated with earthy matter; or (b) of the same, combined with premature sclerosis of the intercellular tissue, and premature osteogenic formation within the cartilage, and arrest of true bony transformation; or (c) of the higher

degrees of inflammation, softening and interrupting the connection between bone and cartilage, with inflammatory exudation, or even suppuration. The red or grayish-yellow band is readily seen, and the hardened prolongation of premature calcified cartilage easily felt and seen.

In the placenta, if the father is primarily affected, there is cellular hypertrophy and multiplication of the villi ("Disfiguring granulation-cell disease"—Fränkel), involving contents, epithelial mantle, and wall of included vessel, proceeding outward from the vessels, the rows of connective tissue nuclei suggesting Haversian canals. In consequence of the accompanying increase in size and weight, the vascular destruction and hypertrophy are soon followed by atrophy and abortion of the villus. Congestion and extravasation are likely to attack the unaffected portions of the placenta, and suffocation of the fœtus ultimately results.

If the mother is primarily affected, there is increased growth of the connective tissue framework of the maternal placental decidua, with enormous hypertrophy of its large cells, leading to destruction of the villi by compression. The endometritis and placentaris nummosa of Virchow, Slavjansky, and Kleinwächter, are probably syphilis of the maternal placenta.

If both parents are primarily syphilitic, or become so early in pregnancy, the conditions described above occur conjointly.

8. *Syphilis of the Placenta.* FITZ. (*Boston Med. and Surg. Jour.*, Dec., 1875.)

The placenta exhibited a thickened and opaque uterine surface, which presented yellowish patches, alternating with others of a grayish-white color. Beneath these were nodular masses, corresponding in color, and of a relatively homogeneous appearance, the yellow nodules being more dense than the gray ones. The membranes were also thickened, opaque in spots, and of a yellowish color. The changes in the placenta were due to a thickening and increased formation of the placental villi, with cell formation and an eventual fatty degeneration.

These changes indicate paternal infection of ovum, without maternal syphilis (Fränkel). The bones of the fœtus (five months old, and macerated) confirmed the diagnosis. There was no sharp dividing line between the bone and the cartilage. There had been frequent previous abortions and probable syphilis of father.

9. *Prognosis in Syphilis.* HUTCHINSON. (*Lancet*.)

The author calls attention to a fact which so many are slow to appreciate, viz., that it is impossible to assure a patient that he has not contracted syphilis, until at least a month has elapsed after suspicious intercourse. It must be remembered that induration may not occur for weeks. If contagion were effected with as much care as to purity of the virus as is exercised in selecting lymph for vaccination, then the result might be confidently predicted. It is, however, not so; and the introduction of pus

(chancrous or other) with the infecting element, influences the results, immediate and deferred.

There is nothing new in all this, but the profession cannot be too often warned of possible errors on this point.

10. *Treatment of Primary Syphilis by Lewin's Method.* SEELEY. (*Nashville Jour. of Med. and Surg.*, Oct.)

The patient had well marked indurated chancre. From the 3rd to the 28th of May, S. injected hypodermically, with tolerable regularity, ten drops of Lewin's solution of corrosive sublimate. There was excessive gastric irritability (relieved by rest, ice to the spine and mustard cataplasms), and the characteristic indurations at the site where the needle entered. Cure was apparently perfect.

11. *Efficacy of Iodide of Potassium in Syphilis.* MCSWEENEY. (*British Med. Jour.*, Sept.)

Five grains of the potassic iodide, combined with three grains of carbonate of ammonia, are as efficient as eight grains of the potassium salt administered in the ordinary way.

12. *Treatment of Phagedenic, Gangrenous, Venereal Sores.* SIMMONS. (*Med. Record*, Sept. 11.)

The diseased parts are immersed continuously in hot or warm water. In one case, where there had been loss of labia, fourchette, clitoris, and part of the urethra, the fetid pus from the immense, irregular cavity became laudable after thirty-six hours' use of the sitz-bath and cushion. Relief was so great that the patient refused to leave the bath longer than was actually necessary. After the desired change was produced, the applications were made only during alternate hours.

Several cases, with equally favorable results, are reported.

13. *Treatment of Papulo-hypertrophic Syphilides.* CHÉRON. (*La France Médicale*, Nov. 10.)

These lesions are painted with a solution of nitrate of silver (fifty per cent. strength), and then touched with the zinc crayon, the operation being repeated every second or third day. Nine days usually suffice for complete removal.

14. *Tayuya—a new Antisyphilitic.* UBICINI. (*Bulletin Gén. de Thérapeutique*, Sept.)

The remedy was found to be efficacious among the Brazilian negroes. Martin discovered in a specimen: green resin; some yellow, unctuous matter; a very bitter, highly aromatic brown extractive; tannin; starch; mucilage; volatile matter; magnesia; alumina; lime; iron; potash and woody matter. The mineral substances were exceedingly abundant, and precipitated at once from a strong solution.

15. *Syphilis Variously Treated in Pregnancy.* WEBER. (*Am. Jour. of Med. Sciences*, Oct.)

(A.) Interference with the digestive tract predisposes to untimely birth. (B.) Exclusively local treatment resulted in 20 per cent. of premature labors. (C.) Local treatment, combined with inunction, left the pregnancy undisturbed. (D.) Inunction, accompanied or followed by iodine, was less satisfactory. (E.) Treatment by iodide of potassium and corrosive sublimate, was attended by 15 per cent. of premature births—in cases where the first named remedy alone was employed, 42 per cent. (F.) The long duration of treatment was less unfavorable than irritation of the intestinal tract. (G.) The period of commencing general treatment does not appear to influence the occurrence of premature births. (II.) The stage of development of syphilis does seem to exercise such an influence.

These deductions are based upon observation of 129 pregnant women, suffering from syphilis.

V. PRACTICAL MEDICINE.

1. *Pneumatometry.* ELSBERG. (*N. Y. Med. Jour.*, Nov., 1875.)

Pneumatometry is the method of measuring the force of expiration and inspiration. For clinical purposes, the maximum force is measured. This is nearly constant for the same person, and the value of the method in diagnosis consists in observing the deviation from health of either inspiration or expiration, and the relation of the two. The instrument used for the purpose consists of an U shaped glass tube, partially filled with mercury, to one end of which is attached a rubber tube connected with a mouth-piece. As the patient inspires from or expires into this tube, the mercury rises or falls in the proximal arm of the glass tube—the amount being told by a scale fixed to the tube.

In health, the average of maximum inspiratory power for the male sex, is expressed by a column of mercury of 86 millimetres; of expiratory power, 110 millimetres. For the female sex, these quantities are expressed by 50 and 70 millimetres respectively. The expiratory power is thus seen to be normally greater than the inspiratory. This is due to the relations of the muscular power used in respiration, the elasticity of the lungs, and "the obstacles presented by the walls of the chest, its contents and their surroundings." In inspiration, "the muscular power forms the positive, and the elasticity of the lungs and the obstacles the negative, factors; while in expiration, all these three factors are positive, with only a relatively small negative one from expiratory obstacles."

Pulmonary emphysema may be detected in its incipient stage, "while yet all other methods of examination fail." The normal relation between the expiratory and inspiratory pressure is found to be inverted; the positive (expiratory) pressure is smaller than the negative (inspiratory). In the slighter forms of the disease, there is only a lessened expiratory pressure; in the more severe forms, the inspiratory power is lessened as well.

Asthma and bronchitis, especially chronic and recurring forms of the latter, are frequently accompanied by a condition of emphysema, and when this is the case, pneumatometry readily detects it. In phthisis, the pneumatometer shows an insufficiency in inspiratory pressure, while the expiratory, "for some time almost normal, is more slowly lessened, and remains larger than the inspiratory." Herein is a difference from emphysema and bronchitis, so great that it is of much value for differential diagnosis in doubtful cases, especially of incipient phthisis. In pneumonia and pleurisy, "similar pneumatometrical conditions obtain," as in phthisis pulmonalis.

2. *Frontal Headache.* BRUNTON. (*The Practitioner.*)

"The administration of a brisk purgative or small doses of Epsom salts thrice a day, is a most effectual remedy for frontal headache combined with constipation; but if the bowels are regular, the morbid processes on which it depends, seem to be checked, and the headache removed, even more effectually by nitro hydrochloric acid, or alkalis, given before meals. If the headache is immediately above the eyebrows, the acid is best; but if it is a little higher up, just where the hair begins, the alkalis appear to be more effectual. At the same time that the headache is removed, the feelings of sleepiness and weariness which frequently lead the patients to complain that they rise more tired than they lie down, generally disappear."

3. *Progressive Pernicious Anæmia, or Anæmatosis.* PEPPER. (*Am. Jour. Med. Sciences*, Oct., 1875.)

Prof. P. reports three cases of this disease.

Case I., was that of a single woman of 26 years, a stout dressmaker, with good family history, who had intense anæmia; irregular fever, uncontrolled by quinia; more or less œdema, gastric disturbances, palpitation, hæmic murmurs—"a humming roar audible over the whole skull," especially strong over the longitudinal and lateral sinuses"—profuse hæmorrhages from the gums, and, later, somnolence, coma and death. There was no albuminuria, no enlargement of spleen or lymphatic glands, and no evidence of organic disease of any organ.

Case II., was that of a man aged 57, who had through life had vigorous health. The disease was ushered in, after some months of somewhat impaired vigor, by a slight sunstroke; jaundice and rapid failure in strength and progressive anæmia followed. There were palpitation, nausea, vomiting, slight œdema, faintness on rising, hæmic murmurs, slight fever, slight emaciation, finally delirium and death. There was no leukemia or affection of the lymphatic glands. There was found slight enlargement of the spleen, and fatty degeneration of the heart, liver and kidneys.

Case III., was that of a man, an iron founder, slight and never vigorous, aged 50, who had had several times attacks of hepatic colic, with a chronic follicular catarrh of the intestinal canal, which had continued for a number

of years. He had suffered for years from a chronic psoriasis of the legs, trunk and arms. The next morning, after a hard day's work, he felt weak; from this time there was progressive anæmia and debility, a tendency to syncope, transient œdema, hæmic murmurs, dyspnœa, irregular fever and somnolence. Later there was wandering delirium. There was found a large calculus in the gall-bladder, with suppuration of the sac; the solitary follicles of the intestines were enlarged; the heart, liver and kidneys were in a condition of fatty degeneration; the spleen was slightly swollen; the lymphatic glands were unaffected. The marrow of the bones (radius) was made almost wholly of "granular cells, round or nearly so, but varying in size from 1-3500 to 1-2000 of an inch. Many of these cells had a single distinct spherical nucleus; a few were very granular, and fewer contained a single drop of fat.

In all the cases there had been found a great deficiency of red corpuscles of the blood, but no increase of the white ones—the blood had, moreover, an appearance of disorganization. In the first case, death occurred in about a year from the beginning of the attack; in the second, in eleven months; and the third in three months.

The author, after a lengthy discussion of the cases and the disease, concludes that, (1) progressive pernicious anæmia is identical with the idiopathic anæmia of Addison, and is not a new disease; (2) it is in reality the medullary form of so-called pseudo-leukemia, (Hodgkin's disease); (3) the primary and essential lesion in this and analogous conditions appears to be an affection of the blood-making tissues—spleen, lymphatic glands, marrow of the bones—causing defective blood-making. A better name than any heretofore in use ought to be chosen for it, and he suggests *anæmatosis* (*a*, privative, and *αἷμασις*, formation of blood); (4) the changes in the blood consist of great reduction of its mass, diminution of red without increase of white corpuscles; (5) the other lesions, fatty degenerations, etc., are secondary, and depend on the blood changes; (6) the symptoms are, in great part, explicable by the state of the blood and heart; (7) the disease, once established, is fatal; (8) the remedies affording most relief, are cod liver oil, arsenic and phosphorus; (9) transfusion is only capable of doing temporary good; and (10) to be safely employed, the amount of blood transfused should be small, and introduced slowly, and repeated at suitable intervals.

In the cases reported, all treatment was of no avail, including the transfusion, twice performed in the last case.

4. *Typhoid Fever, from Drinking Water.* BROWN. (*Phil. Med. Times*, Nov. 13.)

In Mansfield, Pa., students of the Normal School began to have typhoid fever in Oct., 1874. By Dec., 53 had been attacked. There were treated in the school buildings 28 cases, 3 of which died; at their homes 25 cases, 5 of which died. The clinical history of the cases did not differ from that of ordinary, severe, typhoid fever. There was early

diarrhœa in all the cases treated by Dr. B. (28), as also the rose rash in the second and third week. "All the patients vomited large quantities of bile during the period of high temperature."

The water supply of the school was from an artesian well, 140 feet deep. Near by was a surface-well, 20 feet deep; 40 feet from this, down the hill, was a large privy vault that had been used for 12 years. This vault was emptied by a sewer; a few feet below the vault, this sewer was entered by a drain extending from near the surface-well, to carry off surface-water from around the well. Many of the students preferred the water from the shallow well. A man working about the buildings who drank from this well, was attacked with the disease, although he resided at a distance. None of the hired help had the fever except the only person who drank habitually from the surface-well.

Prof. Latimer, of Rochester, found the water of the artesian well contained only "a small quantity of mineral matter," but that the water of the surface-well "literally swarmed with fungoid organisms, and also contained many animalculæ, besides much *débris* of both these classes of organisms in various stages of decomposition." Chemical tests gave strong evidence of sewage contamination. Dr. B. thinks the sewage from the vault had gradually backed up the well-drain, and finding its way through the soil, had contaminated the water which did the mischief.

5. *Three Cases of Dilatation of Lymphatic Radicles.* DR. C. HANFIELD JONES. (*Lancet*, Oct., 1875.)

The first case was that of a young man with grave disease of the kidneys, in which great quantities of albumen and some slender homogeneous and granular casts were voided with the urine. Both lower extremities were œdematous, the left most so, and there was for a time dullness over the lower right back. The abdomen "in both flanks" was markedly dull, the left being most affected, and being lessened on turning on the right side.

At the end of three months, the skin of the left thigh presented many "plexiformly arranged streaks" running upward. They soon increased in size so that they occupied a considerable part of the space of the surface of the thigh and buttock, but not passing above Poupart's ligament. Soon the same appearances, but in less degree, showed themselves on the opposite thigh. The man recovered.

The second case was in a man of 45 years, far gone in tubercular consumption, in whom just before death there appeared enlarged lymphatics similar to those of the first case, extending from the toes to the ankles.

The third case was in a young man with Bright's disease, who died from the affection at the end of eight weeks from the time of attack. Two weeks before death there appeared upon the surface of the lower abdomen and thighs many enlarged lymphatics converging toward Poupart's ligament. In a few days they became enormously distended with a reddish fluid.

In this case there was found, *post mortem*, a quantity of puriform fluid in the abdominal cavity; there was evidence of a slight peritonitis; the

kidneys were very hyperæmic; the lymphatic glands of the mesentery were enlarged, but the glands near Poupart's ligament in the groin were not enlarged, nor were the receptaculum chyli or thoracic duct dilated.

The vessels enlarged in these cases, were not the ordinary subcutaneous, lymphatic vessels, for these run beneath the corium of the skin; the vessels in these three cases were situated *in* the corium or between it and the epidermis. They appeared "to be rather dilated, lymphatic radicles, than actual vessels."

Some of the fluid was drawn from the cavities in the first case, and it had all the appearance of lymph, a "clear alkaline fluid, devoid of corpuscles, slightly albuminous, sp. gr. 1009." The fluid must have been in rapid motion, as from a single needle puncture the flow was so great that two clean sheets were saturated, and $1\frac{1}{2}$ oz. of the material was collected.

Dr. J. is unable to fully account for the appearances described, but thinks the most rational theory of explanation is that, as there was in all the cases more or less venous obstruction, "as the return of blood was barred, there was no other channel for the fluid effused from the capillaries to take but the lymphatics."

VI. THERAPEUTICS.

1. *Salicine in Diarrhœa.* VAIL. (*N. Y. Med. Jour.*, Oct., 1875.)

After detailing a few cases of severe diarrhœa treated with marked success with the above named drug, the writer remarks :

"It combines the tonic element of quinine with strong astringent properties. In cases of enteric atony, especially in chronic cases, from chronic diarrhœa or other debilitating diseases, where quinine is inadmissible from its tendency to irritate the bowels, in my hands salicine has given the most flattering results. My experience has been small, and it is the design of this article to draw attention to this subject, that we may have further light from more experienced quarters. So far, our authorities, as the Dispensatory, Stillé, Flint, and West, make, if any, the most cursory note of salicine as a medicine. Only in Reynolds's 'System of Medicine' does Dr. Aitken mention it as 'a remedy which has been found very valuable in cases of chronic diarrhœa, where opiates and astringents have entirely failed.' I always prescribed it in powders, to be given in sugar and water. You will be surprised how readily it will be taken by the little ones; much more readily than quinine, though more bitter. It seems to be a purer bitter, and one much more acceptable to the stomach. In no case was it ejected till the system seemed satisfied. It is my rule to continue its administration for from two weeks to two months after the subsidence of the disease proper, according to the time the disease has existed. The dose corresponds with that of quinine."

2. *Anti-Neuralgic Properties of Essence of Mint.* DÉLIOUX DE SAVIGNAC. (*Am. Jour. Dent. Sci.*, Nov., 1875.)

The essence of mint exerts a special influence upon the sensory nerves, which diminishes the abnormal vivacity of their reactions when these become exalted in painful affections. It is comparable, in this respect, to chloroform, ether and camphor. Though its high price will prevent its being extensively used in the pure state as an anti-neuralgic and anti-rheumatic, it may be employed in alcoholic solution as an application in the form of liniment; and camphor, chloroform and laudanum may be added to it with advantage in various cases. Dr. Savignac has found it extremely useful in relieving the pain of pruritus; in alleviating, when employed in the form of injections, the miseries of vulvo-vaginal hyperæsthesias, vaginismus, and neuralgias of the head and face, which are best treated by making a small ball of wool of the size of a nut, which has been made to imbibe a few drops of the essence, and rubbing the painful part with it gently. It is then to be covered with a larger piece of wool, and the whole kept in position for a few minutes with the palm of the hand. The success of these external applications of the essence of mint in neuralgias of the head and face, and even in cases of congestive cephalalgia, has been both prompt and permanent. He adds, however, that the cause of the pain must be local for the cure to be permanent, since, if it be dependent on hysteria, or be connected with intermittent fever, or with gastric derangement, the primary cause must first be removed. The remedy seems to have been long known in China. For intermuscular and parenchymatous neuralgias, which are especially obstinate, he has tried the following as a hypodermic injection: Hydrochlorate of morphia, $1\frac{1}{2}$ grains; mint water, 140 minims; alcoholate of mint, 15 minims. Mix.

3. *Administration of Medicine to Infants Through the Mother's Milk.* LEWALD. (*Lyon Médicale*, Oct., 1875.)

The elimination, by the milk of the mother, of iron, bismuth, iodine, and its compounds, arsenic, lead, zinc, antimony, mercury, alcohol, and several narcotics, is here considered. Numerous experiments were made in the goat. The principal conclusions arrived at are: 1. A larger quantity of iron can be administered to the infant through the mother's milk than by any other means. 2. Bismuth likewise is eliminated by the milk, but in very small quantity. 3. Iodine does not appear in the milk until ninety-six hours after taking it; the iodide of potassium, given in doses of forty grains *per diem*, appears four hours after ingestion, and continues to be eliminated for eleven days. 4. Arsenic appears in the milk at the end of seventeen hours, and its elimination had not ceased after sixty hours. 5. Though one of the most insoluble preparations, the oxide of zinc is nevertheless eliminated by the milk, and it is probable that this is also the case with the other preparations of zinc; fifteen grains of oxide of zinc were found in the milk at the end of from

four to eight hours, and it disappears sooner than iron, because no trace of it could be discovered after fifteen or sixteen hours. 6. The elimination of antimony is an undeniable fact, and it is well to bear this in mind during the period of nursing. The same holds true in regard to mercurial preparations. 7. That alcohol and the narcotics are eliminated by the milk has not been demonstrated. 8. Sulphate of quinine is eliminated very easily; a child suffering from intermittent fever was cured by administering quinine to the nurse.

4. *Treatment of Chronic Tumefaction of the Spleen.* MOSLER, of Greifswald. (*Deuts. Arch. f. kl. Med.*; *N. Y. Med. Jour.*, Oct., 1875.)

Provided certain precautions are taken, injections into the spleen can be made without danger. It is first necessary to diminish the quantity of blood in the organ, and this object is attained by giving an hypodermic injection of hydrochlorate of quinine. For some time before the parenchymatous injection is made, ice is applied over the spleen, and as soon as the organ has contracted so that its inferior extremity lies against the abdominal wall, the injection can be made; if it causes much pain, it can be followed by an injection of morphine. Carbolic acid (1-200) was first employed; in another case, Fowler's solution; and these injections did no harm. In one of the cases, the diminution of the volume of the organ was considerable. One cubic centimetre of a mixture of Fowler's solution (1-10) was injected several times. The pain was relatively moderate, the cold being kept applied over the splenic region. This treatment caused complete cure in a patient after all other means had failed.

VII. PHYSIOLOGY.

1. *A Method of Observing the Circulation in the Frog's Lungs.* F. HOLMGREN. (*Centralbl. f. Chir.*, No. 39, 1875.)

The frog (*rana esculenta* is the preferable species) is poisoned by several small doses of curare, so as to be paralyzed for two or three days. A broad fold of the skin is taken up near the arm pit, and a curved needle, armed with a silk thread, is carried through the basis of this fold, whereupon the thread is tied. In the same manner a ligature is applied to the skin near the hind legs. Between both ligatures a sufficient portion of the skin and the thin muscular layer is removed, when the inflated lung will protrude through the wound, and soon collapse.

The frog securely fastened upon a board in the well-known manner, the lung is put into a chamber which fits over the hole in the table of the microscope, and is closed at both ends by glass, to allow the light to pass from the reflector through the chamber into the tube of the microscope. If now the lung is inflated again through a rubber tube, a most beautiful view of the circulation can be witnessed.

2. *The Vaso-Motor Nerves and their Action.* PROFESSORS MASIUS AND VANLAIR. (*Le Progrès Médical*, Oct. 2, 1875.)

1st. The vaso-motor nerves are a part of the vegetative nervous system; they have their principal origin in the spinal cord and medulla oblongata; they arise, accessorially, from the sub-medullary portion of the encephalon, from the ganglions of the sympathetic situated upon the cord, and are distributed to the periphery along the course of the nervous fibres.

2nd. In passing from the medullary axis to the lateral roots, the vaso-motor nerves pass along the anterior branches; they pass along to the vessels, either uniting themselves with the spinal and cranial nerves, or accompanying the arteries.

3rd. The vaso-motor filaments are distributed to the muscular coat of the vessels, and form, at their termination, numerous plexuses, provided with microscopic ganglions.

It is not certain that the nerve fibres penetrate the interior of the cellules which constitute the muscular tunic.

4th. The influence exercised by the vaso-motor nerves upon the calibre of the vessels is incontestible. Of these nerves, some produce, when irritated, contraction of the vessels which they supply; others, on the contrary, produce, upon excitation, a dilating effect.

5th. The vaso-constrictor fibres and the vaso-dilator fibres are probably united in one nerve, in such a manner that the action provoked by an excitant can differ according to the predominance of one or the other species of fibres.

6th. The vaso-motor nerves are dependent upon the centres from which they arise, and exhibit their action by their transmitting it.

The activity of the centres may be direct or reflex, and gives rise to vaso-constrictor or vaso-dilator effects.

7th. The existence of terminal nervous apparatuses, situated in the vascular walls, must be admitted. They are composed of the microscopic ganglions, distributed among the plexuses which terminate the vaso-motor nerves.

These ganglions are the small *tonic* vaso-motor centres.

8th. The vaso-dilator nerves have for their function the moderating of the constrictor power of the latter centres, and the augmenting thereby of the calibre of the vessels.

9th. The vaso-motor nerves, in their course across the medulla, are distributed to the side from which they arise.

The influence of the parts of the encephalon situated in front of the tubercula quadrigemina is transmitted to the opposite side.

10th. The vaso-motor nerves, by virtue of their action upon the calibre of the vessels, have not only the power of modifying the rapidity of the flow of the blood, but they act also upon the vascular tension, as well as upon the temperature, the color and the composition of the blood.

They are equally concerned in the phenomena of absorption, nutrition and secretion.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request:]

THE UNITED STATES GOVERNMENT REPORT ON CHOLERA.

- I. CHOLERA EPIDEMIC OF 1873 IN THE UNITED STATES. The Introduction of Epidemic Cholera through the Agency of the Mercantile Marine: Suggestions of Measures of Prevention. By *John M. Woodworth, M.D.*, Supervising Surgeon U. S. (Merchant) Marine Hospital Service. Washington: 1875. 28 Pages.
- II. REPORTS PREPARED UNDER THE DIRECTION OF THE SURGEON-GENERAL OF THE ARMY. (a.)—History of the Cholera Epidemic of 1873 in the United States. By *Ely McClellan, M.D.*, Assistant Surgeon U. S. A. 513 Pages. (b.)—History of the Travels of Asiatic Cholera. By *John C. Peters, M.D.*, of New York City, and *Ely McClellan, M.D.*, Assistant Surgeon U. S. A. 192 Pages. (c.)—Bibliography of Cholera. By *John S. Billings, M.D.*, Assistant Surgeon U. S. A. 316 Pages. Washington: Government Printing Office. 1875.

Observant members of the profession, will not soon forget their surprise and gratification at the appearance of the *Medical and Surgical History of the War of the Rebellion*, and at the way in which it was received by the most competent judges abroad. No such contribution to medicine, gathered from the medical and surgical incidents and accidents of a great war, has probably ever been made before or since. The approbation with which these labors of the Medical Department of the United States Army were received, has not been without influence in stimulating labors like the present, contained in a ponderous octavo of over 1,000 pages. Such a work could have been accomplished in so short a period of time, only through the almost unrivaled opportunities for collecting information, in reference to such a subject, as is at the disposal of the Medical Department of the Army.

It can hardly be said to be an *opus magnum*, with such remarkable resources, literary and original, at command. Still it is such a work as could hardly have been executed from private hands. In either or both of two ways it may be valuable, either on account of the nature and range of the materials, or the character of the discussion to which they are subjected. The former may be good, and the latter inadequate, or even bad. Upon these two points we will concentrate, though not formally, our attention.

The first part is on "The Introduction of Epidemic Cholera, through the Agency of the Mercantile Marine: Suggestions of Measures of Prevention," and is by the efficient and accomplished Supervising Surgeon of the United States Merchant Marine Hospital Service, Dr. John M. Woodworth. This paper of 28 pages, is only one of the many evidences he has given of an enlightened activity, in improving his opportunities, to turn his position to account, not only to the service over which he presides, but to the advancement of the best interests of medicine. As the title of his paper indicates, it is devoted principally to a history of the modes of introduction of cholera into the United States, through the Merchant Marine. In respect to the importance of this question, Dr. Woodworth truly says:

"If it be true that 'cholera has always been brought to America by ships,' the task of preventing future outbreaks within our borders, is a problem in preventive medicine the solution of which would seem comparatively easy. Such solution depends, however, in common with the answer to any question, upon the extent and accuracy of our knowledge of the factors of the problem. Hence it will be necessary to state compendiously what is known and accepted concerning the cause of malignant cholera—its origin, character, mode of propagation, transportation, etc.; a summary which will be of additional use in assisting to a correct estimate of the value of any suggested means of prevention or limitation."

Dr. Woodworth does not attempt a full discussion of

the subject of his paper, but gives rather a summary of what is considered probable by those most competent to judge, as regards the nature of the cause, and of the modes of its propagation and action. Inasmuch as these are important practical questions, we will quote them at length for the benefit of our readers who may not have seen the work itself. They are as follows :

“I. Malignant cholera is caused by the access of a specific organic poison to the alimentary canal ; which poison is developed spontaneously only in certain parts of India, (Hindustan.)

“II. This poison is contained primarily, so far as the world outside of Hindostan is concerned, in the ejections—vomit, stools, and urine—of a person already infected with the disease.

“III. To set up anew the action of the poison, a certain period of incubation with the presence of alkaline moisture is required, which period is completed within one to three days ; a temperature favoring decomposition, and moisture or fluid of decided alkaline reaction hastening the process, the reverse retarding.

“IV. Favorable conditions for the growth of the poison are found (1) in ordinary potable water, containing nitrogenous organic impurities, alkaline carbonates, etc. ; (2) in decomposing animal and vegetable matter possessing an alkaline reaction ; (3) in the alkaline contents of the intestinal portion of the alimentary canal.

“V. The period of morbid activity of the poison—which lasts, under favorable conditions, about three days for a given crop—is characterized by the presence of bacteria, which appear at the end of the period of incubation, and disappear at the end of the period of morbid activity. That is to say, a cholera-ejection, or material containing such, is harmless both before the appearance and after the disappearance of bacteria, but is actively poisonous during their presence.

“NOTE.—It is not meant by this that the bacteria so found are the cholera-poison, since they differ in no appreciable manner from bacteria found in a variety of other fluids. Lebert hints that the bacteria may even be the destroyers of the poison.

“VI. The morbid properties of the poison may be preserved in posse for an indefinite period in cholera-ejections dried during the period of incubation, or of infection-matter dried during the period of activity.

“VII. The dried particles of cholera-poison may be carried (in clothing, bedding, etc.) to any distance; and when liberated may find their way direct to the alimentary canal through the medium of the air—by entering the mouth and nose and being swallowed with the saliva—or, less directly, through the medium of water or food in which they have lodged.

“VIII. The poison is destroyed naturally either by the process of growth or by contact with acids: (1) those contained in water or soil; (2) acid-gases in the atmosphere; (3) the acid secretion of the stomach.

“IX. It may also be destroyed artificially (1) by treating the cholera-ejections, or material containing them, with acids; (2) by such acid (gaseous) treatment of contaminated atmosphere; (3) by establishing an acid diathesis of the system in one who has received the poison.”

These conclusions if supported by the facts, even though they are provisional, are of great value, and deserve thoughtful attention. We can only give them as they stand, reserving comment until a later part of this paper.

It will not be possible for us to notice at length, the cases in which the transportation of the cholera-poison from one port to another, has been ascertained beyond reasonable doubt, especially in the clothes and other personal effects of patients who have suffered or died from the disease. They are convincing and complete. There can be no doubt that the disease is caused by some material organic agent capable of being conveyed from point to point. Apart from other interesting relations, which such facts suggest, it is to be noted that they have an especial bearing on that hitherto neglected branch of medicine called *preventive*, which is destined to have an increasing importance as time passes by, and as we approach that millenium in medicine when it will be the principal aim, and practical work of physicians to *prevent* rather than *cure* disease. Who can estimate the value of the lives that will be spared and the general suffering that will be prevented, when we shall so understand the cause of cholera, and its mode of action, as in a rational way to arrest its spread, or to render its cause

inoperative! Works like this great Government Report, which is so largely given up to the history of the introduction and spread of the disease in our own country, as well as in other parts of the world, are of inestimable value, if the task of criticising and serving up the matter contained is creditably executed. The position of Dr. Woodworth, as the Chief Surgeon to the Merchant Marine Hospital Service, is peculiarly favorable for collecting reliable information on these important questions, for it must of necessity be, that it is through this branch of our Marine rather than that of the organized Naval Service, that the introduction of the cholera from foreign countries must be accomplished. Dr. Woodworth has done his part of this work in a clear and creditable manner.

He enters also on a consideration of the means for preventing the action of the poison, in the case of those who are subject to its influence. Let the following quotations speak for themselves, on this point, and on the prevention of cholera in general :

“It may be alleged that in the foregoing pages too great stress has been laid upon the *acid prophylaxis of cholera*, to the exclusion of all others. But the cumulative evidence of the experience of the last sixty years warrants the ground here taken. Beginning with the year 1814, the cholera-literature down to the present time abounds in proofs, clinical, physiological, pathological, and meteorological, of the efficacy of sulphuric acid, and there can be little doubt, despite the *dicta* of the last International Sanitary Conference, that *we possess in the mineral acids a certain means of prophylaxis against cholera.*”

“It is safe to say that malignant cholera can be excluded from our shores with reasonable certainty through an intelligent sanitary supervision of the mercantile marine; in which supervision, while the General Government on the one hand, in exercising its delegated powers for the protection and promotion of the general welfare, shall simply acquire and furnish the necessary information; on the other, the ports themselves, thus forewarned and advised, shall be left to enforce the necessary precau-

tionary and preventive measures in accordance with their own local conditions and requirements. For nothing is more clearly proved by the history of cholera than that epidemics of this dreaded disease can be controlled by *vigorous hygienic measures*. *The true remedy against cholera is preventive medicine.*"

The part of the work which succeeds that of Dr. Woodworth is comprised in twenty-three chapters, as follows: I. Clinical History of the Epidemic of 1873; II. Etiology of the Epidemic of 1873; III. On the Prevention of Cholera; IV. On the Origin of the Epidemic of Cholera that reached the United States in 1873; while chapters V. to XXI. inclusive, are devoted to Narratives of the Epidemics for the same year, in the following States: Louisiana, Mississippi, Arkansas, Tennessee, Illinois, Missouri, Kentucky, Ohio, Indiana, Alabama, West Virginia, Georgia, Minnesota, Pennsylvania, Texas, Iowa and Dakota; while the remaining two chapters contain accounts of "Cholera Cases in New York Harbor," and the "Epidemic (1873) as it affected the United States Army." This portion of the work comprises about 500 pages.

As regards the first chapter, valuable as it may be, as a relation of the symptoms and appearances of cholera, for the purposes of identification and comparison, it does not, so far as we can see, contain anything of importance that is new or valuable when compared with the clinical histories of prior epidemics, that calls for particular remark. Neither will it be possible to enter on a consideration of the accounts, often brief, and not always satisfactory, which have been collected from different physicians residing in the States already named, and whose statements make up the "narratives." Amongst much other matter that is clearly irrelevant they contain many useful facts. This, by far the largest part of the present volume, has a certain value—scientific and historical—and we are glad to see so many fragmentary communications, from so many localities, and from such an extent of territory, preserved in a permanent form.

Neither will it be possible or even profitable, for us to enter into an examination at present, of the trustworthiness and real bearings of the multitudinous details, contained in the second part of the work, which contains a pretty full sketch of the history of the disease from the earliest times down to the present, by Dr. Peters, of New York, and Dr. McClellan, of the United States Army ; the latter being the principal author of the volume. But we can commend this to our readers, as one of the fullest in the English language, and in the highest degree valuable and interesting.

Neither will it be possible for us to do more than mention the ponderous bibliography of cholera literature, contributed by Dr. Billings. It is the result of great labor ; and however differences in judgment may arise, as to the scheme of classification adopted, it must be acknowledged as an inestimable boon to all students of the literature of this remarkable disease.

We are glad to see such evidences of a wider range in literary activity than has been apparent, until recently, amongst especially English writers in medicine.

This Bibliographical Index deserves to be published separately.

The remainder of our notice will be confined almost exclusively to the second, third and fourth chapters—especially the second, on the “Etiology of the Epidemic of 1873.” In this portion of the work its chief interest centres. The point then before us, is the cause of cholera and its *modus operandi*.

As regards the *nature* of the cause, we have the following proposition :

“That Asiatic cholera is an infectious disease resulting from an organic poison, which, gaining entrance into the alimentary canal, acts primarily upon and destroys the intestinal epithelium.”

As to the details respecting this “organic poison,” there are copious quotations from Macnamara’s, Thudicum’s and other works on cholera ; and with no very defi-

nite results. But the object that appeared to Macnamara of most peculiar interest in examining microscopically the discharges and the alimentary mucous membranes, *post mortem*, of cholera patients, was what he calls "molecular matter." It consists of fine, dark granules, or molecules, and pervades in varying degrees, the discharges and the epithelial cells of the diseased mucous membrane. It would be instructive to quote his interesting description of this matter, but we have no space in which to do this. He evidently considers it, rather than the associated bacteria, as the true *materies morbi* of cholera. He says :

"It is from this molecular matter in the vibrionic stage of decomposition, and not from the vibriones themselves, that the dejecta of cholera patients are capable of setting up a morbid action in the intestinal canal of those who may receive it." "The vibriones are but a manifestation of the changes going on in the organic matter, which, when it has passed through the form of vibriones, appears to lose its terrible property of inducing cholera." "The perfectly fresh dejecta in the active stages of the disease contain no vibriones, but toward the end of collapse, when the evacuations are passed less frequently, probably remaining in the intestines for some hours, vibriones may be seen in the fluid immediately after it has been passed."

As regards its nature, he says :

"I have examined these molecules for hours together, with, probably, the highest magnifying power yet constructed, (the $\frac{1}{70}$ of an inch,) in order to bring all the resources of the microscope to bear on this point. I confess I have learned but little through the aid afforded me by this marvelous piece of optical work. The molecular matter, when examined by it, is still nothing more, apparently, than molecular matter—small specks in the epithelial cells. I conceive, however, that the higher the power used, and the more careful the search instituted, the more certain it becomes that this molecular matter is formed in and at the expense of the epithelial cells, blood-globules, gland-cells, or, in fact, any organic matter brought within its influence."

The later statements in relation to the same subject, quoted from an article in the *Centralblatt f. d. Med. Wissenschaften* for January 15, 1874, by Högyes, of Pesth, is not inconsistent with the foregoing.

Let us then suppose for the moment, that the dark "molecular matter" described by Macnamara, is the peculiar material product and—in turn—cause of the disease, what is said as to its mode of operation? It appears, especially from the experiments of Högyes, that this matter may act, not only when introduced into the alimentary canal, but also when injected into the veins, and thus made to mingle directly with the blood. What is the mechanism and rationale of the action of the poison?

This is an important question, and one to which we would naturally look for an answer in a ponderous volume like the present. What does the "Report" contain on this topic? Under this relation the elaborate report of Dr. Danforth, of Chicago, upon the pathological specimens obtained by Dr. Hyde in a patient who died of cholera, is the most valuable in the work. In it he makes no distinct mention of the "molecular matter," upon which so much stress was laid by Macnamara. He could find no forms in the discharges nor on the alimentary mucous membrane which he could regard as sufficiently peculiar to be called cholera germs.

And here we notice a great mistake into which the authors of this volume have fallen. The researches of Dr. Danforth are represented as having been made by the Chicago Health Department, and at the instance of Dr. B. C. Miller, sanitary superintendent, when the facts are, that they were made by a committee of the Chicago Society of Physicians and Surgeons, and largely by Dr. J. N. Hyde of the same society, acting with the committee. It is difficult to see how the author could have fallen into such an error as the one to which we allude.

The most important part of Dr. Danforth's report, consists in the account that is given of the appearances

presented by the intestinal mucous membrane. The following quotations may suffice to give an idea of them. He says (p. 38):

“Under a power of about eighty diameters, the following appearances are noted: the mucous and muscular layers seemed to have been much disturbed in their relations, and separated widely apart; between them a very beautiful, loosely-woven web of areolar or connective tissue is seen, sending its delicate filaments across the intervening space, with here and there a little vessel, making its way toward the mucous layer; the latter is unusually thin and unusually smooth on its free surface; not a single perfect villus can be seen, but a few “stumps” of villi are easily made out, as though the missing portion had been rudely torn away. Under a power of 260, the surface of the mucous layer is seen to be almost, in fact *quite* denuded of epithelium, since not a single normal club-shaped cell can be seen. The mucous membrane seems to have passed through some scene of violence, during which its villi have been wrenched from their attachments, and its clothing of epithelium stripped from its surface and carried away. It seems almost beyond belief that a few short hours could have so totally changed the intestinal surface, but every section which I have examined from the specimen of intestine now under consideration, presents precisely the same appearances. Peyer’s glands do not seem to be much altered, quite to my surprise. Possibly they are slightly swollen, but not otherwise perceptibly altered. But, after all, this is not so surprising; the storm is too brief to affect tissues beneath the surface to any great extent. It is rather like a terrible tornado, desolating everything within its reach, but limited in its ravages to objects presenting salient points of attack. The submucous connective tissue and the muscular layer are both beautifully displayed, but neither present any evidence of disease, unless the unusual separation of the mucous and muscular layers be regarded as such.”

These appearances are referred to in various parts of Dr. Danforth’s report, but the above extract may be taken as a fair summary of the more characteristic. There were no other phenomena observed in other parts of the body, that could be called to any marked degree

distinctive, and our attention is to be fixed, therefore, on the condition of the alimentary mucous membrane. Now how shall we account for this wholesale, violent removal of the epithelium of the mucous membrane of the bowel, as has been so graphically described by Dr. Danforth? Is it done by some agency acting on the free surface of the mucous membrane, or from beneath, so as in the latter case to *push off* its epithelial layers?

No attempt is made to answer this question, which is a legitimate and a highly important one, either by Dr. Danforth, or by the authors of this volume, unless, indeed, we consider as such the bare statement in Proposition I, already quoted from the body of the work, that the organic poison "acts primarily upon and destroys the intestinal epithelium." It may be replied, that it was no part of the intention of the authors of a volume of 1,000 pages on cholera, to discuss questions relating to the *modus operandi* of its cause. While the reply would be a valid one, yet it would not diminish the regret of every thoughtful reader, that questions of so much moment have been ignored in the present work. Who is prepared to discuss such questions, if not those who have consecrated so much time to their study? And here we recall a remark made in the beginning of this notice, that such a work as the present, may prove valuable in either or both of two ways: it may be valuable as a repository of facts—materials, simply as such; or it may be chiefly valuable on account of the character of the discussion to which they are subjected. In the first respect, a work may be highly reputable, while in the latter, it may be inadequate and imperfect in any degree, though the contrary could hardly be the case.

In relation to the present work, it is highly valuable as a mass of materials, bibliographical, historical, actual, but the discussion is altogether inadequate. The matter has not always been judiciously analyzed, and the process of true reflective generalization, has not been

carried to even a respectable extent, and certainly not for want of matter or opportunity. There is a remarkable disparity between the labor of collecting materials, and that of digesting them.

But to return. From a consideration of the phenomena of the disease, (since the nature of the cause and its mode of action is known only by inference,) what can be rationally said as to its real pathology, or of the mechanism, or processes, through which its phenomena come to pass? Is it a local disease limited to the mucous membrane, or one of a more general character?

If of the latter kind, how can we account for the remarkable flux from the mucous membrane, and the appearances which it presents *post mortem*, and which are induced with such astonishing rapidity in many cases? Does the cause, whatever it may be, operate through the blood, or the nervous system, or in both ways?

But not to ask further questions, we will declare that in our judgment cholera is not a local disease, if by that term we are to understand that its primary and peculiar sphere of action is that of the mucous membrane of the bowels, and that it is a disease of a more general character, especially involving the action of the splanchnic nerves on the intra-abdominal circulation, and in a way which it will not be possible now to explain, but which it is our intention soon to draw out at length in a special paper on this subject.

The absence of a discussion of such questions, is one of the principal defects of the present work. But taken altogether, it is one which will prove a credit to American medical literature, and will serve, like its predecessors from the medical department of the army, to increase the respect of our transatlantic brethren for the profession and its doings in this country. J. S. J.

A TREATISE ON HUMAN PHYSIOLOGY; designed for the use of Students and Practitioners of Medicine. By *Jno. C. Dalton, M.D.*, Professor of Physiology and Hygiene, in the College of Physicians and Surgeons, New York, etc. Sixth Edition, Revised and Enlarged, with 316 Illustrations. Pp. 828. Philadelphia: Henry C. Lea. 1875.

The sixth edition of this work comes to us revised, enlarged and enriched by over forty new illustrations.

That a new edition should be so soon demanded, is a flattering endorsement of the book by the profession, and we may safely predict that this edition will be acknowledged to be better than any of its predecessors. It contains about fifty per cent. more reading matter than before, but a change in the typographical arrangement necessitates for this increase the addition of only about one hundred pages to the volume.

The first change the reader familiar with previous editions will notice, is the adoption of the centigrade system of weights and measures, instead of the old pounds, ounces, feet and inches. This is undoubtedly best adapted to scientific purposes, but, as the old system is so much more familiar to the general reader, why did not our author at least give a table showing the value of grammes and centigrammes, in grains, and corresponding estimates for measures of length and capacity? A table of this kind would not only prove a great convenience to many, but would actually aid in the final adoption of the decimal system, by associating it with that which is in actual use.

The centigrade scale has been also adopted for thermometry, but a ready way is given for changing its degrees to those which correspond on the scale of Fahrenheit, the latter, however, usually appear in the text in brackets.

Having thus the two scales in constant conjunction, we shall soon become accustomed to the new and better system, and be glad to adopt it, to the exclusion of the old.

The chapter on "Proximate Principles" is much enlarged and improved. Proximate principles are now described in five classes instead of three, to correspond more nearly with recent progress in organic chemistry. In the chapter on "Food," as in previous editions, we are surprised to find no mention made of our gaseous food, oxygen—that most important of all. For we can survive but a few minutes without it; and with it we can live for days and even weeks—all other alimentation

failing. And as oxygen constitutes about one-fourth by weight, of the food required by the body, it would seem to be worthy of a place among the "substances necessary to sustain the process of nutrition," which is our author's definition of food. The chapter upon "Digestion" is very satisfactory. Figure 34, however, is said to be a lobule of the parotid gland of an infant, injected with mercury. To the student who has access to no other illustrations of the salivary glands, this drawing would convey but little information, and that, we fear, not strictly accurate. Figure 48, illustrating Brünner's glands, would in this case afford a clearer impression.

A strange mistake which crept into the fourth edition, has been corrected in this, relating to the digestion of food in the stomach of the ruminants. When an animal of this order has finished browsing, and the process of rumination commences, the food is regurgitated to the mouth by an inverted action of the muscular walls of the paunch and œsophagus, and slowly masticated. It then descends again along the œsophagus; but the lateral opening, which communicates with the first two stomachs, is now closed by muscular action, and the œsophagus, thus converted into a tubular canal, conducts the masticated mass into the *third* stomach, (not the second, as the fourth edition has it). "The exit from this cavity leads directly into the (fourth) abomasus or rennet, the true digestive stomach."

In the table giving the composition of the gastric juice, we see lactic acid has been discarded, and the term "free acid" substituted, which is explained in the text by saying "it is still uncertain whether the reaction of the gastric juice be due to free hydrochloric or free lactic acid." But no mention is made of phosphoric acid in the acid phosphate of lime as an agent in the production of this acidity, a point so much insisted upon by Blandlot, and noticed also by Flint. It certainly deserves a notice in so full an account as we here have of stomach digestion. The chapters on "Intestinal Digestion" and "Absorption" are improved by several new

figures. The chapters upon the "Bile" and the "Glycogenic Function of the Liver" are re-written and very satisfactory. The figures illustrating the spectroscopic appearance of the bile and chlorophyll, from the vegetable kingdom, are exceedingly interesting and suggestive. Our author states in another place, "chlorophyll is of the first importance in vegetable physiology, as it is under the influence of this substance, together with that of solar light, that the inorganic ingredients of the soil and the atmosphere are deoxidized and combined in the form of an organic carbo-hydrate. The process of vegetation proper, that is, the production and accumulation of organic material in the form of starch, sugar, cellulose, woody fibre, and the substance of various vegetable tissues, is inseparably dependent on the presence and action of chlorophyll."

If this be true in the vegetable world, may not the coloring matter of the bile be equally necessary for the formation of the carbo-hydrates in the liver—fat and glycogen? And does the hemoglobine—the coloring matter of the blood—subserve a like important part in nutrition?

Some fine figures are introduced to illustrate the histology of the liver, according to the German school; but nothing is said of the investigations of Beale, in England, who finds the liver cells contained in tubuli analogous to the kidney and other tubular glands. Thus we have but two forms of glands in the body: (1) the follicular, as the peptic and sebaceous, or these compounded into the racemose glands, as the lungs, meibomean glands, etc.; and (2) the tubular glands, as the sudoriparous and cerumenous, or these compounded into the kidney, the liver and the like.

The German school would make a *third* form of gland, in which the secreting cells are not contained in any envelope, but located upon the minute ramifications of the ducts; which absorb the secretion as manufactured, and thus carry it away. In this class they would include the liver, pancreas and salivary glands.

In the chapter upon "The Blood," the description of the spectra of venous and arterial blood, and the amœboid movements of the white blood globules, are the noticeable changes.

The subject of "Animal Heat" is much more fully discussed than in previous editions.

In describing the "Action of the Heart," the statement in former editions is repeated, viz.: that the ventricles elongate during contraction; but the figure of the frog's heart held between the thumb and finger in order to illustrate the action, is here omitted. Perhaps in subsequent editions the author will describe the shortening of the ventricles, with the majority of other observers.

Figures illustrating the tracings of the sphygmograph in health and disease, are the noticeable additions in the chapter on "The Circulation."

There are one hundred pages more in this edition relating to the nervous system than in the fourth. While the arrangement is nearly the same, there is a detail in description and treatment of each topic, which is much more satisfactory.

In the discussion of "The Function of the Cerebellum," we miss the figure of the pigeon, which in other editions so graphically illustrated the effect upon the movements of the bird—of the removal of the cerebellum, and which contrasted suggestively with that which is retained, showing the effects of the removal of the hemispheres.

The deep origin and distribution of the cranial nerves are fully described and finely illustrated. We must except, however, the illustration of facial paralysis, which wants the clearness and sharpness which have made the other editions, as well as this, in the main so attractive.

The section on "Reproduction" shows less improvement than any other part of the work, for the very good reason, doubtless, that it was here less needed.

During the past few years several new works on Physiology, and new editions of old works, have appeared, competing for the favor of the medical student; but none will rival this new edition of Dalton. As now enlarged, it will be found also to be, in general, a satisfactory work of reference for the practitioner. D. T. N.

Translations.

THE SYMPTOMS AND TREATMENT OF INFLAMMATION OF THE CILIARY BODY (ACUTE CYCLITIS.)

FROM A. MOOREN'S SYMPATHETIC DISTURBANCES OF VISION.

Translated from the German, by F. C. HOTZ, M.D.

It is a remarkable fact that, however easy may be the diagnosis of cyclitis, the profession is as yet but little familiar with an exact knowledge of the nature of this malady.

Besides the photophobia and lachrymation, one of the first signs of incipient cyclitis is a well marked circle of vascular injection around the cornea. This vascular zone surrounding the cornea like a circle composed of radiating lines, was well known to the ancients under the name of the arthritic vascular ring, and is now known to be common in all forms of acute keratitis and iritis as well as in the first stage of granular conjunctivitis. This symptom alone, therefore, would not be sufficient to establish the existence of cyclitis; it does not acquire any diagnostic significance until it is associated with a great tenderness to pressure of the ciliary region. Pressure with the tip of the finger upon the closed eyelids will never fail to produce a pain which all patients agree in localizing in the upper and inner portion of the globe; but the severity of this pain differs according to the extent of the inflammation and the individual degree of sensibility. It is not unusual to see a robust workman who, under other circumstances, would bravely endure the pain of any external lesion, groan and faint from that caused by a gentle pressure upon the eyelids. Sometimes the sensitiveness is so acute that patients can not tolerate the lightest bandage over their eyes. And wherever we suspect an inflammation of the ciliary ring, we can discover the starting point and seat of the inflammation—latent though it be—with an absolute certainty, by passing a probe over the ciliary region, as I

have frequently seen it done by Von Graefe. There is no symptom more certain and undeceptive for the surgeon as well as for the patient.

The symptoms just enumerated are soon followed by an increase in the depth of the anterior chamber. This phenomenon is less due to an increased secretion of aqueous humor than to a retraction of the iris caused by inflammatory adhesions of its periphery to the ciliary processes. This morbid process is manifested by a projection of the *ligamentum pectinatum** which encases the periphery of the iris as the frame does the crystal of a watch.

In very grave cases I have seen this projection developed in from 20 to 24 hours after a contusion of the ciliary region. Even when the retraction of the iris extends over its whole circumference, the pupil sometimes shows a faint mobility ; and is always with comparative facility dilated by atropia unless the iris is implicated in the inflammation. The complete retraction of the iris is an extremely dangerous obstacle to the circulation ; for the arteries of the iris, supplied by the two long posterior ciliary and branches of the anterior ciliary arteries, pass over into veins at the pupillary margin and can no longer empty their blood into the venous ring of the ciliary processes and the *vasa vorticosa*. In consequence of this impeded circulation, the veins of the iris appear engorged and tortuous, the epithelial layer is veiled by a fine mist, the aqueous humor becomes turbid ; and with these symptoms we generally observe a slight hypopyon that comes and goes. If the cyclitis does not yield to the treatment, or the retraction of the iris has existed for a longer time, slight effusions of blood into the anterior chamber are not of rare occurrence, and the ocular conjunctiva, previously somewhat puffy, soon exhibits the character of a chemosis.

* *Ligamentum pectinatum* is the name given to the fibrous attachment of the anterior surface of the iris with Descemet's membrane; its origin is a little behind the margin of the transparent cornea.

The impairment of the sight keeps pace with the aggravation of the malady. The ophthalmoscopic examination, however, proves that the disturbance of vision is not due merely to the turbidity of the aqueous humor, but should be, to a great extent, attributed to the rapid formation of opacities filling the anterior portion of the vitreous humor, now in the form of a dense mist and again in the shape of numerous floating flakes.

These local symptoms are always attended by signs of constitutional disturbances, usually those of gastric disorder with more or less febrile excitement.

Such are the essential symptoms of cyclitis, but one or another may predominate at times; sometimes the vascular injection, and the symptoms of engorgement that result therefrom, develop with unusual severity; sometimes the neuralgic pain prevails most persistently, resisting the largest doses of quinine, or, by extension, it invades the whole tri-facial nerve, leaving a sensation of numbness over the corresponding half of the face and head, during the period of remission.

In other cases again, the inflammatory and neuralgic symptoms are comparatively slight; the increased secretion constitutes the prominent symptom; and in consequence of the unusual depth of the anterior chamber, the greater width of the pupil and the fine deposits upon the posterior surface of the cornea, the disease greatly resembles serous iritis. We could not affirm that this or that series of symptoms resulted from specific influences; it seems, however, to be a matter of fact, that cyclitis supervening upon operations—that for cataract, for example—sometimes even iridectomy, has a great tendency to assume the character of a purulent inflammation. This tendency to suppuration is still more pronounced in cases of violent contusions of the ciliary region. Under these circumstances a purulent infiltration of the cornea nearly always coexists with or is dependent upon the cyclitis; and terminates in complete necrosis of that membrane.

Whatever form the cyclitis may exhibit, the sensitive-ness of the ciliary ring to the touch and the presence of opacities in the vitreous humor, are constant symptoms. I have observed but two cases in which the character of the malady was less distinctly defined, and in which even a transient cloudiness of the vitreous humor did not take place, although there was the greatest tenderness on pressure, a most violent neuralgia which followed each attempt at accommodation, and a most vivid pericorneal redness.

Cyclitis, even when spontaneous, is undoubtedly one of the most dangerous inflammations that can befall the eye; for, besides the importance of the ciliary body itself, the malady, often insignificant and scarcely perceptible in the beginning, may become the source of the most formidable danger.

My observation of the fact, that every attempt of the sound eye at accommodation increases the pain in the eye affected by cyclitis, has induced me to begin the treatment by covering the sound eye with a bandage. After instilling a solution of atropia (Atrop. sulph. gr. ij; Aq. dest. ℥.j), I ordered the inflamed eye to be covered by warm poultices, to which hyoscyamus or any other narcotic drug, as *herba conii* or *capita papaveris*, may be added, in order to increase—as many physicians suppose—the sedative properties of the poultices. I can not say that I have found any difference in the effect of simple poultices and those containing narcotic medicaments. But especial attention was given to having the poultices of a uniform and moderately warm temperature, and to their being renewed at once as soon as the patient complained of chilliness.

In extremely painful cases, the poultices were continuously applied during 4, 6, 10 and even 24 hours, and reapplied after the patient had rested for awhile. This treatment, so simple and yet so beneficial, has never been varied; only where we have had to deal with much chemosis, the use of the poultices was preceded by the

application of leeches to the inner canthus. The leeching had to be repeated very seldom, and was done in those cases only where the robust constitution of the patient did not contra-indicate its employment.

Besides the use of atropia, which acted as a sedative on the secretory nerves of the eye, morphine was administered at night and the hypodermic injections employed as often as the intensity of the symptoms urgently required their use. Hence it has happened that the hypodermic injections had to be repeated twice or three times during a day, although morphine was given regularly every evening. As soon as the neuralgia assumed an intermittent type, quinine was given in large doses. If it did not show any intermittent character, we preferred to prescribe *magnesiae sulph. with sodæ vitr.*, unless the gastric disorders indicated the use of *sodæ bicarb.* or the acids. Whenever the cyclitis was accompanied by increased secretion of aqueous humor, the derivatives were discontinued and diuretic remedies substituted; among which the *extr. colocynth.* combines the derivative and diuretic action most happily. In general, we did not rely upon one remedy exclusively; *scilla maritim.* was used, as well as *digitalis*, or *coccionella*. Of late years, we have ceased to employ sudorific remedies, not only because with most patients they increase congestion of the head and thereby aggravate the malady indirectly, but also because the constant perspiration renders the patient too liable to catch cold. As a rule, we abstain in cyclitis from any operative interference wherever it can possibly be avoided; we perform paracentesis of the cornea only in rare cases and never do iridectomy, no matter how turbid the aqueous humor nor how copious the hypopyon. For, under these conditions, the operation is uncertain in its results, and may be followed by very disastrous consequences.

Such are the simple rules which guide me in the treatment of cyclitis. In cases only of wounds of the sclerotic, or of coexisting irido-choroiditis, the use of atropia

is strictly prohibited, because experience has taught me that the use of atropia under such conditions invariably aggravates the malady. Nor is the atropia used in cases distinguished by excessive vascular injection with chemosis of the conjunctiva, until a decided decrease of the severe injection is observed.

I have no hesitation in saying, that this mode of treatment has proved to be as efficacious as it was simple; for the subsidence of the pain usually was the first sign of its favorable influence; subsequently, a decrease of the vascular injection occurred, while the aqueous humor became clear, and the hypopyon disappeared. I have seen recent cases of frightful cyclitis, in which the entire periphery of the iris was retracted, recover completely within fourteen to eighteen days by the continued use of poultices and a few instillations of atropia.

However favorable a course the disease may take if submitted to rational treatment from the beginning, we must avoid becoming too hopeful. I have seen the neuralgia persist for weeks in spite of the use of the most powerful narcotics, in spite of the most careful attendance, and in spite of all imaginable precautions observed by the patient. At this moment I have under my care a patient suffering from acute granular ophthalmia complicated by cyclitis; during five entire months he had been tortured by the most violent pain day and night. The largest dose of morphine taken internally had no effect worth mentioning; the hypodermic injections only brought relief for a few hours; but complete intermission did not occur till within the last weeks. In this case a most salutary influence on the cyclitis may be attributed to the occurrence of a favorable change in the weather; for at that time the vitreous humor began to clear up, and a few posterior synechiæ were the sole remaining signs of a coexisting iritis.

Medical News and Items.

INTERNATIONAL MEDICAL CONGRESS.—The Centennial Medical Commission is organized with the following officers:

President — Samuel D. Gross, M.D., LL.D., D.C.L. Oxon.

Vice-Presidents — W. S. W. Ruschenberger, M.D., U. S. N.; Alfred Stillé, M.D.

Recording Secretary — William B. Atkinson, M.D.

American Corresponding Secretaries — Daniel G. Brinton, M.D.; William Goodell, M.D.

Foreign Corresponding Secretaries — Richard J. Dunglison, M.D.; R. M. Bertolet, M.D.

Treasurer — Caspar Wister, M.D.

Arrangements have been made for the holding of the Congress in the city of Philadelphia. The Commission propose the following general plan for the organization and business of the Congress:

I. The Congress shall consist of delegates, American and foreign, the former representing the American Medical Association and the State and Territorial Medical Societies of the Union; the latter the principal medical societies of other countries.

II. The officers shall consist of a President, ten Vice-Presidents, four Secretaries, a Treasurer, and a Committee of publication, to be elected by the Congress at its first session, on the report of a Committee of Nomination.

III. The morning sessions of the Congress shall be devoted to general business and the reading of discourses; the afternoons to the meetings of the Sections, of which there shall be nine, viz: 1. Medicine, including Pathology, Pathological Anatomy and Therapeutics; 2. Biology, including Anatomy, Histology, Physiology and Microscopy; 3. Surgery; 4. Dermatology and Syphilology; 5. Obstetrics and Diseases of Women and Children; 6. Chemistry, Toxicology and Medical Jurisprudence; 7. Sanitary Science, including Hygiene and Medical Statistics; 8. Ophthalmology and Otology; 9. Mental Diseases.

Gentlemen intending to make communications upon scientific subjects will please notify the Commission at the earliest practicable date, in order that places may be assigned them on the programme.

The Congress will be formally opened at noon, on Monday, the fourth day of September, 1876, and close Sept. 9th. The registration book will be open daily from Thursday, Aug. 31, from 12 to 3 P. M., in the Hall of the College of Physicians, northeast corner 13th and Locust streets. Credentials must in every case be presented.

All communications must be addressed to the appropriate Secretaries: William B. Atkinson, 1400 Pine street, Philadelphia, Recording Secretary; Daniel G. Brinton, 2027 Arch street, William Goodell, 20th and Hamilton streets, American Corresponding Secretaries.

We are pleased to announce that our quarterly cotemporary, heretofore published in this city, changes its name with the new year, and will hereafter be known as the *Journal of Nervous and Mental Disease*. It will be issued simultaneously in Chicago and New York. Messrs. G. P. Putnam's Sons, of the last named city, taking charge of its issue there. Its editorial management will remain unchanged, as all readers of the former journal will be pleased to hear, but the co-operative assistance has been secured of Dr. Wm. A. Hammond, of New York; Dr. S. Weir Mitchell, of Philadelphia; and Dr. E. H. Clarke, of Boston. The journal is to be also increased in size. It has already become the exponent of the American school of neurologists, and has secured a recognition abroad in which we are proud to participate.

 ERRATUM.—In article on "Fragilitas Ossium," page 9, second line from bottom, for "parturition," read *pregnancy*.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS.

SOCIETIES.

Mondays, Jan. 3 and 17—Chicago Med. Society, regular meetings at Gault House, 8 P. M.
Mondays, Jan. 10 and 24—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P. M.—Prof. Holmes.
 At Chicago College, 2 P. M. *Gynecological*—Prof. Merriman.
 At Central Dispensary (239 W. Van Buren St.), 2 P. M., *Gynecological*—Dr. Adolphus.
 At Mercy Hospital, 2 P. M. *Medical*—Prof. Johnson.

LECTURES. *Every Monday.* At Rush College (18th and Arnold Sts.), 8½ to 12½ o'clock—
 Profs. Gunn, Miller, Freer and Powell; 4 to 6—Profs. Lyman and Etheridge. At Chicago
 College, 8½ to 12½—Profs. Jewell, Isham, Hyde and Bond; 3 to 6—Profs. Davis and
 Nelson, Andrews and Quine, and Roler. At Woman's Hospital College, 9 to 12—Profs.
 Thompson, Bogue and Blake; 3 to 6—Profs. Paoli, Stevenson and MacDonald.

TUESDAYS.

SOCIETIES.

Tuesday, Jan. 11—Academy of Sciences, annual meeting, 8 P. M. (263 Wabash Av).
Tuesday, Jan. 25—Medico-Historical Society, regular meeting, 8 P. M.

CLINICS. *Every Tuesday.*

At County Hospital, 2 P. M., *Medical*—Prof. Ross; 3 P. M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P. M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P. M., *Medical*—Prof. Hollister.

LECTURES. *Every Tuesday.*

At Rush College, 8½ to 12½—Profs. Gunn, Miller, Allen and Parkes; 4—Prof. Lyman. At
 Chicago College, 8½ to 12½—Profs. Jewell, Isham, Merriman and Bond; 3 to 6—Profs.
 Davis and Nelson, Andrews and Hatfield, and Byford. At Woman's Hosp. Coll., 9 to
 12—Profs. Marguerat, Bartlett and Fitch; 3 to 6, Profs. Delafontaine, Curtis and Mac-
 Donald.

WEDNESDAYS.

CLINICS. *Every Wednesday.*

At County Hospital, 2 P. M., *Ophthalmological*—Dr. Montgomery; 3 P. M., *Gynecological*
 At Chicago College, 2 P. M., *Gynecological*—Prof. Nelson.
 At Mercy Hospital, 2 P. M., *Surgical*—Prof. Andrews.

LECTURES. *Every Wednesday.*

At Rush College, 8½ to 12½—Profs. Hay, Freer, Allen and Parkes; 4 to 6—Profs. Lyman
 and Etheridge. At Chicago College, 8½ to 12½—Profs. Hollister, Isham, Hyde and
 Bond; 3 to 6—Profs. Davis and Curtis, Jones and Quine, and Roler. At Woman's Hosp.
 Coll., 9 to 12—Profs. Dyas, Earle and Thompson; 3 to 5—Profs. Paoli and Stevenson.

THURSDAYS.

CLINICS. *Every Thursday.*

At Eye and Ear Infirmary, 2 P. M.—Prof. Holmes.
 At Chicago College, 2 P. M., *Gynecological*—Prof. Merriman.
 At Central Dispensary, 2 P. M., *Gynecological*—Dr. Adolphus.
 At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

LECTURES. *Every Thursday.*

At Rush College, 8½ to 12½—Profs. Gunn, Miller, Allen and Parkes; 4 to 6—Profs. Ross
 and Lyman. At Chicago College, 8½ to 12½—Profs. Hollister, Isham, Merriman and
 Bond; 3 to 6—Profs. Davis and Nelson, Andrews and Hatfield, and Byford. At Woman's
 Hosp. Coll., 9 to 12—Profs. Marguerat, Bogue and Fitch; 3 to 6—Profs. Delafontaine,
 Curtis and MacDonald.

FRIDAYS.

SOCIETIES.

Friday, Jan. 14—State Microscopical Society of Illinois, regular meeting at the Academy
 of Sciences, 8 P. M.

CLINICS. *Every Friday.*

At County Hospital, 2 P. M., *Medical*—Prof. Ross; 3 P. M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P. M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P. M., *On Dis. Eye and Ear*—Prof. Jones.

LECTURES. *Every Friday.*

At Rush College, 8½ to 12½—Profs. Gunn, Freer, Allen and Parkes; 4 to 6—Profs. Holmes
 and Etheridge. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Hyde and
 Bond; 3 to 6—Profs. Jones and Curtis, Andrews and Quine, and Roler. At Woman's
 Hosp. Coll., 9 to 12—Profs. Hotz, Bartlett and Blake; 3 to 5—Profs. Paoli and Stevenson.

SATURDAYS.

CLINICS. *Every Saturday.*

At Rush College, 2 P. M., *Surgical*—Prof. Gunn; 3 P. M., *Diseases of the Brain and
 Nervous System*—Dr. Hay.
 At Chicago College, 2 P. M., *Gynecological*—Prof. Nelson; *Surgical*—Prof. Andrews;
 3 P. M., *Medical*—Prof. Davis.

LECTURES. *Every Saturday.*

At Rush College, 8½ to 12½—Profs. Hay, Miller, Freer and Parkes. At Chicago College,
 8½ to 12½—Profs. Hollister, Quine, Sherman and Hatfield; 3 to 6—Profs. Davis and
 Nelson, Andrews and Quine, and Byford. At Woman's Hosp. College, 9 to 12—Profs.
 Marguerat, Earle and Fitch; 4 to 6—Profs. Curtis and MacDonald; 3 to 5—Prof.
 Thompson.

There are six special Clinics daily at the South Side Dispensary (at Chicago College)
 for students of the Chicago College. A daily Clinic is given at Dispensary of Hospital for
 Women and Children, 1½ P. M., for students of Woman's Hospital College.

THE
Chicago Medical Journal
AND
EXAMINER.

VOL. XXXIII. — FEBRUARY, 1876. — No. 2.

Original Communications.

ON THE RUPTURE OF THE EYEBALL.

By F. C. HOTZ, M.D., CHICAGO.

The force required to destroy with a blunt instrument the continuity of the sclerotic, the firmest and strongest tissue of the eyeball, is so great that usually some or all of the other structures are more or less involved. But for these complications, a rupture of the sclerotic would not be a very serious accident; for it tolerates lesions very well, as we can daily observe in the kind healing of the incisions made intentionally into the sclero-corneal junction for the removal of cataracts, and of wounds inflicted accidentally upon the sclerotic proper. I once saw a young surgeon in an European eye-infirmiry, operate for an inveterate convergent strabismus; and while severing the tendon of the internal rectus, he was unfortunate or unskillful enough to cut into the sclerotic, also wounding the choroid and retina, making a small button-hole through which the vitreous humor could be seen. The eye was bandaged at once and the patient was kept in bed for a few days, after which time the wound was

healed without any serious damage resulting from the injury. These lesions were incised wounds, it is true; but there are good reasons to suppose a lacerated wound of the sclerotic, unattended by any serious complications, will heal kindly too, although its edges be not quite so smooth. As the rupture occurs always at a place far remote from where the blunt instrument strikes and bruises the eyeball, the borders of the split do not suffer any contusions, and the disturbance of their nutrition is not great enough to prevent a healing by first union if the wound is properly closed.

It makes very little difference whether the conjunctiva over the rupture is torn or not, nor does this give any measure of the degree of the force which caused the accident.

It is not meant that the blow must have been less forcible and injurious to the interior structures of the globe, when the conjunctiva is not torn, than when it is.

I have seen a subconjunctival rupture of a globe whose inner structure was thoroughly mashed. The end of a billiard cue had been thrust in the eye with a terrible result. The sclerotic was burst over the upper half of the eyeball, a profuse bleeding occurred into the eye, forcing out through the wound all the vitreous humor and the greater part of the retina, and crowding the iris and lens to the posterior surface of the cornea. The conjunctiva was not torn, but it was raised from the sclerotic by the accumulation of blood and vitreous humor. The patient did not consent to the extirpation of his demolished eye; and to alleviate his suffering the conjunctiva was cut into and a large quantity of blood evacuated. Here the blow was thoroughly destructive to the eye, and yet the conjunctiva was not involved. And in regard to the healing, the subconjunctival rupture has no advantage over the open wound; nay, I might say, the latter offers a better chance, because it can be cleansed nicely, and closed accurately by a suture. And a good healing depends, in the first place, on a good apposition of the borders of the wound.

The location of the rupture is of some consequence only when it passes through the ciliary ring, because then it is, even without any complications, a very serious lesion on account of the well known dangerous character of inflammation of the ciliary body. But when the rent is in front of, or behind, the ciliary region, the location itself has no decisive weight in determining the question whether the lesion will be fatal to the eye. This depends solely and entirely on the complications usually attending the rupture. And these complications are as different in seriousness as the physiological characters of the various structures composing the contents of the eyeball. We observe an effusion of blood into the anterior chamber, a detachment of the iris from its ciliary border, or a prolapse of the iris; the lens may be dislocated or forced out of the eyeball through the wound, a portion of the vitreous humor may have escaped or blood may fill the whole posterior chamber in place of the vitreous humor; the retina may be detached from the choroid, either in consequence of concussion or by an effusion of blood between the two membranes; and a portion of the choroid and retina may protrude through the rent in the sclerotic. A number of these complications involve the most vital parts of the eye, which then must be regarded as irretrievably lost.

It is unfortunate that these cases constitute the majority, among the lesions in question. No wonder, therefore, if many consider a rupture of the globe as equivalent to the loss of this organ, and believe nothing short of the extirpation of the eye is to be done, although this operation is not always indicated. If we can positively ascertain that the vital parts of the eye have seriously suffered; if we are certain the eye will never be of any good use, but become a source of continual suffering to the patient, we are right in advising its immediate removal. But in many cases we are unable, on the first examination, to estimate the full magnitude of the injury; the globe is burst, and the anterior chamber filled with

blood, so much so that we are utterly ignorant about the condition of the iris, lens and other parts; they may be seriously damaged, or they may possibly have escaped any great injury; we cannot tell. To sacrifice the eye under such conditions I would call a very unjustifiable proceeding, and I mention this because I am well aware of the fact that under just such circumstances the excision of the eye has been advised and performed by ophthalmic surgeons. There is no reason for being in such haste. We can not run any risk by waiting until the obscuration of the anterior chamber is removed, so that we can realize the actual extent of the injury and shape our treatment accordingly, or until such symptoms arise as positively prove the hopeless disorganization of the inner structure of the eye and demand its exirpation. And although many eyes have then to be removed, and one might say the immediate excision would have saved the patient a good deal of pain and time, as it has to be done after all, I would rather bear this blame than to be charged with having sacrificed an eye which might have been saved by a less hasty and more judicious treatment. I like, in doubtful cases, always to give the patient the benefit of the doubt. And how well this expectant treatment is sometimes rewarded, the following cases may illustrate. They have been under my observation long enough to warrant the permanency of the result.

1. *Rupture of the sclerotic; loss of vitreous humor; suture seven days after the accident; recovery.*

On August 11, 1874, A. N., aged thirty years, while hunting, received so heavy a blow on his head by the explosion of his gun, that he was stunned for several minutes. When recovered, he found the right eyelids swollen to such an extent that he could not open the eye. This swelling of the lids subsided under the use of cold water, and on the third day after the accident, he could open his eye again to find that sight though somewhat impaired, was still retained. As the eye continued

to be red and tender, he used, on the advice of a physician, a lotion of acetate of lead.* From this time the inflammation steadily increased in intensity, and the visual power steadily decreased at the same rate.

On August 18, when I examined the eye, it could scarcely distinguish light from darkness. The ocular conjunctiva was intensely reddened, and studded with ecchymoses; over the inner half of the globe it was torn, the rent beginning at six millimetres from the inner margin of the cornea, and extending horizontally backwards for seven millimetres. In the same direction, though less extensively, the sclerotic, choroid and retina were ruptured, and the gaping wound was filled with a gray pluck of protruding vitreous humor. The cornea showed a faint parenchymatous haziness, the aqueous humor was somewhat turbid and colored by effused blood, the pupil of a medium width, immovable and not quite circular, because a small portion of the inner margin was less retracted than the remainder of the iris, and so formed a little tongue protruding into the pupillary space. This irregularity was not caused by posterior synechiæ or irido-dialysis, and it disappeared in a few days. The lens was transparent, but the vitreous humor was densely clouded and did not permit of any illumination of the interior of the eye. The tension of the eyeball was markedly diminished and the upper ciliary region was very sensitive to the touch.

This case resembled, in several points, the two cases of gaping wounds of the sclerotic which George Lawson has recorded in his "*Injuries of the Eye, Orbit and Eyelids*;" in the one case the wound was closed by a suture on the third day, in the other on the eighth day after the

* It is strange, but nevertheless true, that whenever physicians have to prescribe for "sore eyes," they almost invariably give a lead lotion! If they only could bear in mind that this is, generally speaking, a dangerous eye water and must be used with the greatest precaution! Every text book and every lecturer teaches this, and still they prescribe it with criminal carelessness.

accident, and in both a very gratifying result was obtained. True, Lawson's were *incised* wounds, while ours was a *rupture* of the sclerotic, produced at a somewhat unusual place,* by a sudden, violent blow upon the eye. But as this blunt force struck the eyeball at another point than where its tunics were torn, and as the edges of the wound were not contused but smooth and straight, the chances for its healing when united by a suture, were just as favorable as in the cases quoted above, unless the violent blow had established a deep-seated intra-ocular hæmorrhage, or a detachment of the retina. Such complications, however, could not be thought of, since the patient had affirmed, quite positively, that on the third day after the injury he could still see pretty well. The slight dimness of his sight then was due to the turbidity of the aqueous humor into which a little blood was effused, and the subsequent failure of his vision could well be accounted for by the cloudiness of the vitreous substance which followed the injudicious use of irritating lotions.

The wound was freed from the vitreous protrusion, and its lips were united by a single suture of finest silk. The eye was closed and covered by a moderately firm bandage; the patient was kept in bed in a dark room. On Aug. 21, the suture was removed and the wound remained closed by a fine linear scar; the eye ball appeared fuller, the tenderness of the ciliary region had disappeared entirely, and the patient could already count my fingers at a distance of two feet by candle light. By Aug. 28, the cornea and aqueous humor had become perfectly clear; the pupil, then circular, of normal size, responded readily to the light; the diffuse cloudiness of the vitreous had consolidated itself into a number of dark horizontal streaks; the fundus oculi, though still veiled, could be seen; the tension of the globe was normal, and vision

* "Unusual," because these rents from such a source are known, as a rule, to occur in the anterior part of the sclerotic, and to be near and parallel to the margin of the cornea.

$\frac{20}{200}$. From this time on, I examined the eye repeatedly to confirm a steady decrease of the opacities in the vitreous body; they became fewer in number and shorter, contracting themselves, as it were, toward the place where the sclerotic had been ruptured. On Dec. 30, vision was $\frac{20}{30}$; the exterior of the eye was normal in every respect and so was its interior, excepting a minute conical opacity which marked the seat of the lesion of the ocular tunics. And this improvement was not ephemeral but lasting; at least I found it so about a year ago, when I examined the eye the last time.

2. *Subconjunctival rupture of the sclerotic; prolapse of the iris; recovery.*

On Nov. 7, 1873, J. P. H., 66 years old, presented himself with the following history: Two evenings previously he was in a billiard hall to witness a game, when a billiard ball bounced off the table and struck the old gentleman's left eye. He felt a sharp pain and could see no more with that eye. On the day of his first visit, the pain was very moderate; the upper ciliary region, however, was very sensitive to the touch. There was some tumefaction of the lids and considerable redness and swelling of the conjunctiva; the cornea transparent, but the anterior chamber filled with blood, so much so, that nothing could be ascertained in regard to the pupil and iris. About two millimetres from the upper margin of the transparent cornea, and parallel with it, the conjunctiva was raised up by a dark bluish substance 10 millimetres in length and $1\frac{1}{2}$ millimetres in width. By November 11, the blood effused into the anterior chamber was re-absorbed, and the full extent of the lesion could be realized. The iris exhibited a large defect in its upper half, as if a broad iridectomy had been performed. The dark blue mass lying under the conjunctiva, was the upper portion of the iris protruding through a long subconjunctival rupture of the sclero-corneal border. The refractive media were trans-

parent, and the fundus oculi did not show any anomaly. During strict functional rest, enforced by the use of atropia and a bandage, the eye quickly recovered of the traumatic inflammation. All signs thereof had faded away by Dec. 4, when the sight was $\frac{2}{3}$ (vision of the right eye being $\frac{2}{4}$). The hernia of the iris having shriveled down to a thin atrophic tissue and the scar in the sclero-corneal junction being well consolidated, the above described abnormal elevation of the ocular conjunctiva had made room again for the natural smoothness and normal curvature of the tunics. Only at the inner angle of the wound the scar showed a slight distension and attenuation of the tissue, and fearing that this might lead to a staphylomatous or "cystoid" expansion, I punctured it (December 16) with a broad needle, and excised the little thin flaps. The aqueous humor, of course, was all drawn off; but after a few days the anterior chamber was restored. No further bulging of the cicatrix took place; and up to the present writing, the patient has been using the restored eye with comfort.

SOME REMARKS ON INTRA-UTERINE POLYPI, WITH SPECIAL REFERENCE TO THEIR DIAGNOSIS AND SURGICAL TREATMENT; WITH THREE CASES.

BEING THE REPORT OF THE GYNECOLOGICAL SUB-SECTION OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

(Read before the Chicago Society of Physicians and Surgeons, Nov. 22, 1875.)

By A. REEVES JACKSON, M.D.,

Surgeon-in-Chief of the Woman's Hospital of the State of Illinois; Lecturer on Diseases of Women in Rush Medical College.

MR. PRESIDENT AND GENTLEMEN:

It would be impossible, without taxing your time and patience to an unwarrantable degree, to make a report which would adequately cover the ground now occupied by Gynecology, a department which has attained a position scarcely second in extent and importance to the other

great practical branches of medicine. I have therefore selected from this wide domain a single subject, which, while free of intrinsic interest, will serve to exemplify some of the advances which have been made in recent years in this field of surgery.

A polypus of the womb is an outgrowth of some portion of the uterine tissue, which remains attached to the wall of the organ either by a broad base or a defined peduncle. It is therefore a local hypertrophy of some of the normal structures composing the organ. These growths vary greatly in size, being sometimes not larger than a grape seed, and at others larger than a cocoa-nut. They grow from any portion of the uterus; from its external surface or from its interior. In the remarks which follow, I will confine myself to the latter class, namely, those which have their origin in some portion of the cavity of the organ, or project into it, and which are still retained within its limits. This will exclude from our consideration not only other morbid growths to which the term polypus is sometimes applied, such as retained portions of placenta or of fœtal remains, fibrinous polypi or blood-clot, cauliflower excrescence and carcinomatous growths, although these may and frequently do assume the polypoid form and give rise to symptoms identical with those of true polypus, but also true polypi which project from the peritoneal surface of the womb and which arise from the external os and cervical portion.

Intra-uterine polypi may take their origin from any part of the interior of the organ—the fundus, the body, or the cervix. As they increase in size they usually pass downwards through the os uteri into the vagina, and they may even protrude beyond the vulva. When they have emerged from the os uteri and are discoverable in the vagina, their diagnosis and treatment become comparatively easy and simple.

Varieties.—Uterine polypi are of three kinds—the mucous, the cystic, and the fibrous.

The mucous polypi consist of the cellular or connective

tissue of the mucous membrane. They are commonly pedunculated, the peduncle being formed by an elongation of the membranous tissue drawn downward by the growing polypus. They are usually of small size, being rarely larger than a pea, although I have seen one as large as an English walnut, and Dr. Atthill gives an account of one which he saw in a patient twenty-four hours after delivery, which had attained the size of an orange. It was attached by a long slender pedicle just inside the os uteri and hung partially outside the vagina. These polypi are highly vascular, of a bright pink, or pinkish gray color, and commonly of a soft gelatinous consistence. They may grow from any part of the cavity of the womb, but are most frequently found attached to the cervix.

The cystic or glandular polypi also have their origin in the mucous membrane, or rather in the glandular structures imbedded in it. Their attachment is always sessile, and they rarely exceed a filbert in size. Generally they are much smaller, and when they exist in great numbers, as they sometimes do, the aggregation resemble a vegetating mass surrounding the os uteri like a fringe. They are formed from the enlarged utricular or Nabothian glands, although they are thought to be sometimes new formations. They are whitish or pearl-colored, and consist of clear, tenacious mucus resembling the white of an uncooked egg, enclosed in these delicate walls which are easily ruptured. Their usual place of origin is the cervical canal.

The fibrous polypi grow from the muscular or sub-mucous tissue of the uterus. They consist of the same anatomical elements, in varying proportions, as compose the parenchyma of the womb, and sometimes attain a very large size. A fibrous polypus may be regarded as simply a fibrous tumor in an advanced stage of development. The two are identical in structure; either may be surrounded by a capsule of condensed cellular tissue, and the symptoms produced by them are the same. A

fibroid tumor of the sub-mucous variety, partly by increasing in size more than the parts around it, and partly, also, by the contraction of the surrounding muscular fibres, projects in the direction of the least resistance—that is, into the uterine cavity. These forces continuing to act, the tumor finally becomes pyriform and pedunculated from its own weight, and its largest portion hangs in the distended cavity of the uterus. In other cases its attachment remains sessile. In either case it soon occludes the canal to some extent, either at the internal os or at some part of the cervical canal, and, operating in the manner of a ball-valve, prevents the free exit of any fluid that may be poured into the cavity above it. The consequent distension of the uterine walls causes contractions, sometimes of a very powerful character, and the polypus, when pedunculated, is forced downwards and may eventually pass into the vagina. This process of distension is from the first facilitated by the loose nature of the attachment of these muscular tumors to the surrounding uterine tissue.

Fibrous polypi generally arise from the fundus or body of the uterus, although they are sometimes attached to the cervix. In the majority of cases they are solitary, but Klob states that two are sometimes found together, their sides being flattened by contact with each other; and Dr. George H. Kidd* has given the details of a very remarkable case, in which he removed twenty-nine fibrous polypi from the interior of the cavity of the body of the uterus of an unmarried woman, aged fifty-six years, at four operations—all within a period of ten months. This case is certainly quite unique.

The pressure of a fibrous polypus in the cavity of the womb stimulates the organ to increased growth, and its walls become thickened and elongated, so that the fundus may frequently be felt above the pubes, and even as high as the umbilicus. It may incline to either side, and may

* *Dublin Quarterly Journal of Medical Science*, Feb., 1869.

be regular or irregular in outline, according to the shape of the growth within.

Symptoms.—The symptoms which denote the pressure of polypus are chiefly three—hæmorrhage, leucorrhœa, and pain. Usually the first symptom which attracts the notice of the patient is a profuseness of discharge at the catamenial periods. At first she may scarcely observe the change, but after a time the periods increase in length and the intermenstrual times become shortened ; and, by and by, she has a sanguineous discharge on making any extra exertion, so that in some instances there is an almost constant hæmorrhagic flow.

Alternating with this discharge is the next most common symptom, leucorrhœa. This is generally abundant, and frequently offensive. Sometimes it is clear, transparent, ropy and tenacious, and may be seen hanging from the os uteri like a mass of jelly ; at others, it is yellowish, brownish or greenish, and occasionally streaked with blood. Sometimes the discharge is of a thin, watery character, tinged with blood. This is especially likely to accompany the pressure of the small cystic polypi that grow in the canal of the cervix, and produce a patulous condition of the os.

Under such a continual drain, the health of the patient soon fails ; she becomes feeble, pale and cachectic ; digestion is deranged ; she has pains in the back, and a sense of weight and dragging in the pelvis.

Pain, although a frequent accompaniment of polypus, is not so generally present as the symptoms already mentioned. When the polypus is so situated as to obstruct the exit of fluid from the cavity of the uterus, very severe pain of an expulsive character is experienced during the menstrual flow ; and similar pains may occur at other times from the retention of mucous and serous fluids. Pain is also felt in many cases behind the pubis, and in the neighborhood of one or other ovary—never, in my experience, in *both*. The pain varies in degree from the slightest soreness to the most severe uterine colic.

The gravity of the symptoms produced by uterine polypi is by no means proportionate to the size of the growth; for, while in some cases of very large polypi the hæmorrhage, leucorrhœa and pain may all be slight, in others, a polypus no larger than a currant may cause the most exhausting leucorrhœa or even fatal hæmorrhage.

When, in connection with spasmodic or intermittent pains resembling those attendant upon labor or abortion (these conditions being excluded), there are frequent or copious hæmorrhages and leucorrhœa, with or without enlargement of the womb, we may suspect the presence of polypus, but with these rational symptoms only we can do no more than suspect it. Nothing but a physical exploration can enable us to decide the point definitely; and when the symptoms enumerated can not be otherwise accounted for, and are not controllable by the use of ordinary means, an examination of the pelvic organs should be promptly made.

Diagnosis.—As already stated, uterine polypi, when they have descended beyond the os uteri, are easily discovered both by touch and sight, and they are as easily treated; but it is a very different matter when they are still within the uterine cavity. Occasionally, under favorable circumstances—for example, during an attack of bleeding when the cervix is greatly relaxed—the polypus may descend so low as to be on the point of emerging from the os uteri, and may then be perceived by the finger, or even by the use of the bivalve speculum, which expands the os when its blades are separated. But in most cases the diagnosis can only be made with certainty by artificially dilating the cervical canal sufficiently to permit the introduction of the finger.

The means now generally used for dilating the cervix are expansible tents made of prepared sponge, or of the *laminaria digitata*, or sea tangle. In this country the sponge is most commonly used, while in Europe preference appears to be given to the *laminaria*. For myself

if restricted to the use of one only of these agents, I would prefer the sponge tent, because of its superior dilating power when well made; but in most cases I employ both.

It has been urged, as the chief objection to the use of the sponge tent, that it becomes horribly offensive after lying in the genital tract a few hours; but, inasmuch as this unpleasant odor can be prevented in great degree, by incorporating with the tent either permanganate of potash or a solution of carbolic acid, this drawback should not stand in the way of its employment. My objection to the sponge tent is, I think, a much more serious one; its use almost invariably results in the removal of the epithelium from the mucous membrane, leaving a large denuded surface, which may become an avenue for the admission of septic material into the system.

In order to avoid this, I adopt the following plan: instead of introducing as large a sponge tent as the cervical cavity will admit, as is the common custom, I prefer to use a smaller one, and then insert by its side, one after another, small slips of sea-tangle, sufficient in number to surround, if possible, the sponge. In this manner a much larger quantity of dilating material can be used than is possible with a single sponge tent, or with a number of laminaria tents used without the sponge, and, at the same time, the mucous membrane is protected from the injurious contact of the sponge. To accomplish this proceeding properly, the sponge tent should be slightly coated with a mixture of melted wax and lard—one part to three—in order that it may not absorb moisture and commence to expand too quickly.

It is quite important that sponge tents should be well made, and of properly selected material. Many of those in the market, although very elegant in appearance, are almost worthless as dilating agents, and I have sometimes been greatly disappointed at finding them, twenty-four hours after their introduction, scarcely larger than when first inserted. In order to be efficient they should not be

made of the finest and closest sponge, nor, on the other hand, of the very coarse or honeycomb variety; the first lacks resiliency, and the other lacks power. Good, sound, unbleached sponge, of medium texture, is the best for the purpose. Sponge tents should not be saturated with mucilage of gum Arabic, as is still directed by some authorities; but, instead of this, they should, before being compressed, be soaked in a weak solution of carbolic acid.

When the first attempt fails, as it sometimes does, to effect a sufficient degree of dilatation, rather than repeat the introduction of the tents, I prefer to use the rubber dilator of Molesworth. From frequent use of this instrument, I can bear witness to its safety and efficiency. By its aid, after the cervix has been softened and relaxed by the tents, we can usually, in a few minutes, produce all the additional dilatation necessary.

The cervix having been sufficiently opened, the index finger may be passed into it, and if firm downward pressure be made at the same time upon the fundus through the hypogastrium, we can, in many cases, explore the uterine cavity beyond the os internum, and be enabled to detect the presence of an existing polypus, even of the smallest size.

If the polypus be of the larger kind, the finger will probably pass around it, between it and the cervix, on every side, showing that its attachment is higher up, the distance being determinable in some measure by the degree of mobility of the growth.

In the case of very obese patients, or where, from any other cause, the finger cannot be made to penetrate sufficiently far, we may usually succeed by inducing anæsthesia, and introducing the hand into the vagina.

In examining for polypi, it is well to bear in mind that they are sometimes intermittent in their appearance. A case came under my observation, several years ago, in which a mucous polypus, about the size of a cherry, could only be seen during the menstrual periods. At

those times it protruded slightly beyond the os uteri, but at other times it receded within the cervical canal, and could neither be seen nor felt. Several writers have reported similar instances. Hence, it is better, in a suspected case, to make the examination during the menstrual flow, or an attack of metrorrhagia. The polypus is not only more likely to descend lower at such times, but the relaxation of the os and cervix are also much greater, and are more likely to admit the tip of the finger.

The uterine sound is commonly not of much use in enabling us to differentiate a polypus from other growths or conditions. It may teach us definitely that the cavity of the uterus is lengthened, and inform us as to its direction, but it is only the fibrous polypus that causes notable enlargement of the womb, and the same result is produced by an imbedded fibrous tumor.

A few years ago, Dr. Kidd called attention to the fact, that in several cases observed by him, the polypus caused a bulging of the uterine wall opposite the point of attachment; and he maintained that if it should be found, after more extended observation, to be a law, that an intra-uterine pedunculated polypus in its development produced a bulging of the opposite side, while an interstitial or submucous fibrous tumor caused, as is well known, a bulging of the wall in which it is developed, the fact would be of great practical importance. For a knowledge of it would enable us, by the use of the sound alone in many cases, to diagnosticate between these two forms of neoplasm—that is to say, where the sound passed on the side of the bulging, it would show that the growth was a polypus, and where it passed on the other side, it would indicate the presence of a non-pedunculated growth. But such is not the law; or, if it be, there are so many exceptions to it as to make it valueless for the purpose indicated. I have myself seen two cases of polypus in which the bulging corresponded with the point of attachment.

There is occasionally great difficulty in introducing

the sound, and sometimes this cannot be done at all. This happens when the polypus drags the fundus very strongly forward or backward, in one case throwing the os uteri upward into the hollow of the sacrum, and in the other behind the symphysis pubis.

I have never been able to verify the claim made by some gynecologists, that by the use of the sound we can ascertain the fact of mobility of an intra-uterine polypus; and I have the belief that such a notion has arisen from an erroneous sense of touch. When a polypus is sufficiently large to be perceived at all by an insensitive metallic instrument, it is in such close contact with the walls of the womb as not to be readily moved about; and, notwithstanding the fact that they are frequently so represented in the books, uterine polypi do not hang in the cavity of the womb, as does the clapper in a bell, capable of dangling from one side to the other.

Treatment.—Uterine polypi sometimes disappear spontaneously. This may occur in two ways. First, the weight of the polypus by its traction upon the pedicle may cause the latter to become thinner and thinner until the growth drops off; secondly, ulceration of a destructive character commences in that portion of the mucous membrane covering the pedicle, and the latter becomes softened and gangrenous. When this latter result happens, the symptoms strongly resemble those of cancer.

But it is not our duty to wait for any such spontaneous cure, which very rarely, and usually never occurs. When we have ascertained the presence of a polypus it is our duty to remove it, if removal be practicable. The operation may be a very simple affair, or it may be one of the most difficult in surgery. If the growth be small and low down in the cervix, or, if the pedicle be attenuated and readily reached, it will be sufficient to seize it with a pair of suitable forceps and twist it round and round until it drops off; or, in such cases, the pedicle may be snipped with scissors. When forceps are used, they should be strong both in blade and joint.

But these modes of procedure only succeed when the pedicle is small. When it is large and thick, other means must be used. Of these, the best and the one most usually available is the *écraseur*, armed with a single soft iron wire. Dr. Kidd and Dr. Atthill prefer a steel wire—a piece of piano-forte string. They consider the steel quite as manageable as the iron after its introduction to the uterine cavity, and it is certainly much stronger. In a single case in which I tried it, I did not find it so convenient as the soft wire, and, indeed, was obliged to change it for the latter. The wire should be carefully selected, and should be free from rust-spots and any other defect. It should be adequate in size and strength for the work it has to do. It is not only exceedingly annoying to have a wire break inside the uterine cavity, after it has been placed about the peduncle of a polypus with, perhaps, great difficulty, but such a mishap is also dangerous, for it is almost impossible to withdraw it without seriously wounding the interior of the womb. Likewise, the instrument should be strong, and the screw furnished with sufficient leverage to tighten the wire easily. The more power we have at command, the more gently and steadily it can be employed.

The operation for removal of large polypi should always be done under anæsthesia. The fatal result in one of the cases I will relate further on, occurred, I believe, indirectly from neglect of this condition. The pain and tension upon the nervous system proved too great for the patient's power of endurance, and prevented the proper completion of the operation.

The patient, then, having been brought fully under the effect of ether or chloroform, the operator should seize the anterior lip of the uterus firmly, with a strong vulsellum, and by steady traction aided by supra-pubic pressure, the cervix should be brought down to the vulva. Then, giving the vulsellum in charge of an assistant, he (the operator) should pass the index finger into the cervix and ascertain, accurately, the size and place of attachment

of the peduncle. A second strong vulsellum is next to be passed into the cervical canal and affixed as high as possible on the polypus. This being done, the wire loop of the écraseur, passing over the handle of the instrument and guided by the finger, is placed around the peduncle at the proper point and slowly tightened by turning the screw. This process should be continued, steadily and gradually, until the peduncle is cut through, when the écraseur, vulsellum and polypus may be brought away together.

Before releasing the hold of the vulsellum upon the cervix, the finger should again be passed in and the uterine cavity thoroughly explored, to ascertain whether more polypi be present. If so, they should be at once removed; if not, the whole interior of the womb should be brushed over with a solution of perchloride of iron in glycerine, and the patient placed in bed.

In applying the loop of wire around the pedicle it is neither necessary nor desirable that it should enclose the latter very near its attachment to the uterine wall—not nearer than a half inch or an inch. It is undesirable because the proceeding is then more likely to be followed by pain and inflammation; and it is unnecessary because it has been repeatedly demonstrated that the removal of any considerable portion of a polypus is as surely curative as though the whole be taken away.

Occasionally much difficulty is experienced in extracting a polypus from the uterine cavity after it has been detached. Prof. Simpson mentions one case in which the os uteri was divided to allow the possibility of extracting a polypus of the size of a filbert. Vulselli with short teeth do not always hold, and those with long teeth are difficult to open in the narrow uterine cavity; besides, there is danger that these latter may catch in the uterine walls.

(TO BE CONCLUDED.)

THE MICROSCOPE IN DAILY PRACTICE.

(FOURTH PAPER.)

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The solid and semi-solid structures, both healthy and morbid, which require microscopic examination, should be specially prepared for this purpose. Indeed, such preparation is absolutely necessary, if a successful or reliable examination is to be made, or if the operator desires to preserve his specimens permanently. And this leads me to say, that it is entirely within the power of any physician, however busily he may be engaged in practice, to prepare and permanently preserve microscopic specimens of the various tissues, healthy and morbid, until he shall possess a museum of his own, sufficiently extensive for all ordinary purposes of study and comparison. And such specimens are particularly valuable, because the gross appearances of each specimen can be studied, and also because the history, and frequently the ultimate result of each case, can be accurately ascertained, by the possessor of the microscopic sections.

It is vastly important that our younger practitioners be led to understand how much they can do towards building up the science of pathology by carefully and systematically utilizing the material which comes within their reach. One single case, carefully studied and accurately and *conscientiously* reported—especially if death occurs and a post-mortem is obtained—possesses an imperishable value to medical science; and it may be that this single case presents some new feature hitherto unnoticed, which is of vast importance in elucidating some dark point in pathology.

It is really a simple matter to prepare sections of the tissues for microscopic examination, and to preserve them in an unalterable form. But when the process is described on paper, it seems quite complicated. It

requires few materials, very little outlay of money, but considerable tact and practice, and inexhaustible patience and industry. It is necessary, also, to do things of this sort in a systematic and workmanlike manner. A careless, unsystematic and slovenly microscopist, is all but—and I think quite—an impossibility. In fact, one of the collateral benefits that any young physician gets out of his microscope, is that through its use he acquires habits of neatness, promptitude and method.

In the present paper I purpose indicating the means necessary for investigating and preserving the histological structures, leaving the methods of their employment for a future paper.

First. For the preservation of large specimens, as tumors, or portions of organs which it is desired to keep temporarily or permanently, common commercial alcohol answers every purpose, and is, upon the whole, best of anything. A very valuable preservative fluid, which I have employed for several years, is the following: R Alcohol, Water, aa f ʒ x; Glycerine, f ʒ iv; Carbolic Acid, ʒ ij. Mix.

For small specimens, like portions of morbid growths of diseased organs, which are intended for future microscopic study, this fluid is very useful, as it causes much less shrinking and distortion than alcohol. Dr. Keen, of Philadelphia, speaks very highly of solutions of hydrate of chloral, (10 to 20 grains to the fluid ounce of water), as preserving fluids for soft tissues. I have several specimens in chloral solutions, (20 grains to the fluid ounce), and they are keeping very nicely.

It is not necessary to multiply words concerning preserving fluids; every one can modify them to suit himself and his specimens after a little experience, and perhaps a few failures. I repeat, however, that the formula given above (for alcohol, glycerine, etc.) will be found very useful for specimens which it is important should be kept with as little change as possible.

Second. Many tissues—for example, the brain and

spinal cord, and medullary cancer—must be hardened before microscopic sections can be made. For many specimens, the strongest commercial alcohol answers every purpose; indeed, I rarely find it necessary to employ any other hardening agent. A solution of chromic acid has been much employed, especially by Mr. Lockhart Clarke, for hardening nervous structures. One part of chromic acid is dissolved in 200 parts of water. For hardening portions of brain substance proper, however, the solution must be weaker: say, one part of acid to 300 of water. I have employed this agent considerably, but I think strong alcohol does equally well, and chromic acid is not always at hand, at least in the 'smaller towns. Other formulæ, for hardening solutions, are given in the text books and journals, but they possess no advantages over those mentioned above, and therefore need not be alluded to.

Third. For the satisfactory and profitable examination of the various tissues—both normal and abnormal—very thin slices or sections are requisite, and a variety of instruments have been invented for the purpose of making these sections: such as Valentin's knife, various forms of razors, etc.

Valentin's knife is both complicated and costly, although it is very efficient in skillful hands. An old razor does very well, but is rather too heavy and clumsy for ordinary use. Razor blades, "beveled" upon one side only, are kept by the dealers in microscopists' wares, and are much employed as section knives.

A few years ago, I commenced using the instrument of which the accompanying figure is a fair illustration:



It "consists of a single blade, two and one-half inches long, from heel to point, by three-eighths of an inch in width. It is exceedingly thin, and is, of course, made of

the finest steel. It is mounted in a shell handle, is made to close up like an ordinary pocket knife, and is supplied with a pivot, which slides into a slot in the blade to hold it in position, like those usually found in surgical pocket cases. * * * With this simple instrument, I am able to make sections in all respects equal to those I formerly made with Valentin's knife, and with far less trouble." (The "Lens," vol. I, p. 28.) After a larger experience I am prepared to reiterate the opinion I published in January, 1872, concerning the value of this simple and inexpensive instrument for the purpose of making microscopic sections of *all* varieties of soft tissues. Within the past two years, I have procured an improved Valentin's knife, and have also tried my hand at inventing an "improved" razor-shaped knife; but, after a brief experience, I gladly abandoned them both, and returned to the thin-bladed knife just described. And I now recommend it, unhesitatingly, as the best section-instrument with which I am acquainted, because it is inexpensive; because with it any one can quickly learn to make handsome sections, and because they can be made rapidly; because it is easily sharpened, and that without any special dexterity; because it is always ready for use, without any troublesome and delicate adjustment of parts; and, lastly, because it is easily cleaned, and, therefore, easily kept from rusting.

I have dwelt at considerable length upon this matter, in view of the fact—which my own experience has taught me—that an efficient and simple section-knife is a sort of standing temptation to make sections; whereas, a complicated affair has exactly the contrary effect. The knife I recommend is so easy to manage, in all regards, that a man must be the very perfection of clumsiness who can not cut delicate sections after a little experience in its use.

Fourth. A few simple implements, involving hardly any cost, like the following, should be provided: A pair of rather coarse, common sewing needles, mounted in

wood handles, like the wooden rods employed in making pen-holders ; three or four small glass rods, each drawn to a fine point by heating in a spirit lamp : a large-sized, and a few small-sized camel's hair pencils ; a dozen of two drachm or half drachm phials fitted with corks ; and, of course, a few glass slides and their covers of glass or mica, such as I described in the paper published in the JOURNAL AND EXAMINER for October.

It will be a saving of time and trouble if the above list of articles be provided, before attempting any real work with the microscope. A few reagents will also be necessary. The following are those which are really essential for the physician's ordinary purposes : Alcohol, pure and diluted ; sulphuric ether ; solution of acetic acid, containing about twenty per cent. of acid ; aqueous solution of iodine, made by adding ten or fifteen drops of the "Liquor Iodini Comp." U. S. P., to an ounce of distilled water ; and little slips of both red and blue litmus paper. These reagents should be kept in ounce bottles, with the stoppers so arranged as to allow of the application of a single drop of any one of them to a glass slide. This may easily be done by passing a small glass rod through the cork, and allowing it to project to the bottom of the bottle ; a drop or two will always adhere to the rod when it is withdrawn. A very convenient test bottle may be made by passing one of the little instruments called a "medicine dropper," through a cork, in place of the glass rod. The medicine dropper consists of a small rubber bulb, into which is inserted a short pipette ; the bulb is allowed to project *above* the cork, while the pipette passes *through* it, and reaches to the bottom of the bottle. If the rubber bulb be compressed, the air is, of course, expelled, and the liquid in the bottle rushes in as soon as the pressure on the bulb is removed ; the convenience of this arrangement will suggest itself at once. Glass-stoppered bottles, with the stoppers drawn out into delicate glass rods, reaching nearly to the bottom of the bottle, may be obtained of the dealers in chemical wares,

but they are no better than the "home-made" contrivances already described. Dealers in dentists' supplies also keep bottles in which the upper portion (the "handle") of the glass stopper is a hollow bulb, while the lower portion is a small glass rod reaching almost to the bottom of the bottle. If the bulb be gently heated in the flame of a spirit lamp, or in hot water, the air is mostly expelled; if, now, the open extremity of the rod be plunged beneath a liquid, the latter will mount in the glass tube and fill the bulb more or less completely; if the bulb be held between the fingers, it will always be sufficient to expel a drop or two of the reagent. These bottles cost twenty-five cents each, and they are the most convenient of any yet devised.

The length to which this paper has already reached, admonishes me that I shall be compelled to defer what I have to say upon staining fluids, preservative media, etc., until a future time.

74 SOUTH MORGAN STREET.

PERFORATION OF THE APPENDIX VERMAFORMIS; DEATH IN THIRTY-SEVEN HOURS.

By CHAS. WARRINGTON EARLE, M.D., CHICAGO.

Thomas Harbridge was a healthy, robust, and temperate man; of English origin; aged 29; a contractor by occupation. His health up to the time I was called, had been such that he had not required the services of a physician for fifteen years.

I was called to see this gentleman, March 9th, 1873, and found that the day previous he had eaten very heartily of veal, indeed had made his dinner meal almost entirely of it.

He felt very uncomfortable for three or four hours, and finally was seized with severe pain in the region of the umbilicus. He was habitually constipated and the evening before, as was quite usual for him, had taken a dose

of some kind of cathartic pills, which had, as yet, caused no evacuation of the bowels.

I ordered a laxative sufficient to move his bowels ; hot fomentations to the abdomen, and anodynes, after the action of the cathartic, in such quantity as would give him ease.

I diagnosticated the case as indigestive colic, and expressed my belief to my patient that his sickness would be of short duration—that after a complete evacuation of the bowels he would be comparatively free from pain. Upon taking my departure I requested to be notified if he was not better the following day.

I was recalled March 12th, and informed that after the action of the medicine which had been ordered three days before, the patient had been greatly relieved, but at present he was suffering with a diarrhœa and a slight diffused soreness in the abdomen. A more careful examination showed a tongue covered with a whitish fur, red at the end, and dry ; a pulse at 120 ; temperature in the axillæ, $101\frac{1}{2}$; slight tenderness in the right iliac fossa. He was ordered the turpentine emulsion, and an easily digested diet. In the evening his pulse was 120 ; temperature, 102.

March 13. Patient better in every respect. His fever had subsided ; the diarrhœa had ceased ; the appearance of the tongue is improved. He was given an acid tonic (the acid arom. sulph., with some carminative), with instruction to resume the emulsion if his diarrhœa returned.

March 14. Visited Mr. H. at 9.30 A. M., and found him sitting in a chair and feeling very comfortable. He had eaten a fair breakfast and expressed himself as “all right, only a little sore from the pain, and weak.” His pulse was at 90 ; I counted it at least twice. He complained of *no local pain whatever*. There was at this time no particular soreness even in the right iliac fossa, indeed, the slight pain that he experienced, was more like a diffused lameness, from the severe spasmodic

pains of the preceding days. He was to continue the tonic ; the light and easily digested diet ; and was cautioned to keep quiet.

One hour and a half later I received an urgent call to revisit Mr. H. I obeyed the summons as speedily as possible and found my patient in collapse—covered with a cold, clammy perspiration—pale and nearly pulseless. I learned that a short time after my morning visit, he felt well enough to walk down stairs, and while standing conversing with one of his workmen was suddenly seized with a most violent pain in the abdomen, and was in a few minutes in collapse.

I administered diffusible stimulants with anodynes ; applied heat to the extremities, and fomentation to the abdomen, and by one o'clock P. M. his pulse was somewhat better, yet the pain was severe. At three o'clock P. M. his pulse was not as good ; his face was congested ; extremities still cold ; countenance hypocratic ; indeed he was still in collapse, and nothing that I could do was rallying him.

There was no doubt in my mind, at this time, as to the nature of the difficulty we had to combat. It was evident that some foreign substance had been emptied into the peritoneal cavity. What it was I could not tell. The previous history of the case would hardly justify any definite opinion. I immediately asked for, and it was decided to have, a general consultation.

That evening Drs. W. G. Dyas, T. D. Fitch and A. H. Foster visited the patient with me. After a careful consideration of all the symptoms present in the case, it was decided that the collapse from which our patient was suffering, and which already foreshadowed a most serious result, was peritonitis, caused by one of three things, to wit : perforation of the bowel from some ulcerative process—rupture of a blood vessel—or extravasated blood from minute openings.*

* Broussais and some other authorities speak of the induction of peritonitis by the exudation of blood into the abdominal cavity, without solution of continuity in any of the blood vessels. * * * * *

It was also agreed that opiates and stimulants by mouth, and fluid nutriment by rectum, would give us the only hope of successfully combating the difficulty, and restoring our patient to his anxious friends.

The morning of the 15th, Dr. Fitch saw the case with me. There was certainly no change for the better. His pulse, if any difference could be detected, indicated a more serious condition. There was tympanitis over a large part of the abdomen, and dullness in the *left iliac fossa*. No symptoms of general effusion were present. Early in the day the patient was seen by Dr. Tree, a gentleman of more than forty years practice, the family physician to the parents of Mr. Harbridge. As far as I have learned, he coincided with the opinions advanced by the medical gentlemen in attendance, in both diagnosis and treatment, and, at his suggestion, the ung. hydrargyri was thoroughly applied to the abdomen. All our efforts were in vain, however, and death took place thirty-seven hours after his sudden attack.

A post mortem examination was made about twelve hours after death, at which were present several physicians and a number of relatives and friends of the deceased.

The cadaveric rigidity was not well marked, indeed we would not expect it; for in the case of persons killed suddenly in full health, or dying after a very brief sickness, the rigidity of the muscles may not take place for thirty hours. The body was well nourished, there being from one to two inches of adipose tissue between the integument and abdominal muscles. Both the peritoneum and intestines showed the effect of general inflammation. In the abdominal cavity was found a large

According to Broussais, the pulse is at first full, soon becoming soft and compressible, the pain very acute, often intermittent, the extremities are cold and convulsions quickly close the scene. Laennec also spoke of hæmorrhagic exudations from serous membranes, and Rokitansky attributes such tendency to certain blood changes, such as the tubercular and alcoholic cachexiæ, the scorbutic constitution, etc., etc.—*Reynolds' System of Medicine, Vol. III.*

amount of albuminous exudation and a small amount of serum.

As the intestines were partially removed from their place, we found, in about the central part of the abdominal cavity (a little to the right) an oval, bean-shaped substance, resembling very closely a peanut, indeed several gentlemen remarked at once the resemblance I have named.* As we proceeded to examine the right iliac fossa, evidence of pus was found, and when the cæcum was withdrawn, the secret of the trouble was plainly manifest. The appendix was inflamed throughout its entire length, and perforation had taken place at three points. The largest opening, and the one from which the concretion mentioned above probably escaped, was about one-half inch from the bowel, the two other openings were near the pointed extremity. Within the tube, and between the openings mentioned, were found four other concretions, similar to the one which had escaped into the peritoneal cavity.

There was a large amount of pus in and around the appendix, and the evidences of a severe and destructive inflammation were very marked.

* My patient had been a great lover of peanuts, and generally had a supply with him, eating them while at his work.

Editorial.

OUR LIBRARY.—In this number of the JOURNAL AND EXAMINER we give a partly full account of the opening of the Library of the Medical Press Association, an event which must interest the whole profession of the Northwest.

The Medical Libraries of Chicago have never been extensive, and in the great fire of 1871, a number of good private collections of books were lost, and since then have not been fully replaced.

Prior to 1871, Cook County Medical Society had collected a small library, amounting, we believe, to about two hundred volumes. This was probably the first attempt made in Chicago to form a public Medical Library, and almost as soon as begun the collection was burned up. The officers of the Academy of Science have generously given the Medical Press Association, room for their Library in their fire-proof building, at 263 Wabash Avenue.

It is hardly necessary to urge the need of a public Medical Library. Without it, extensive research is impossible, and progress in the science of medicine, if not entirely prevented, is certainly very much retarded.

The extensive range of books required for thorough research, is very seldom afforded by private libraries. We know of no collection of books in Chicago, at all adequate to the demands of the professional scholar. Private libraries, in this new country, are the creation of a few years growth only, and intended to supply references for the practitioner, whose time is largely occupied with the active duties of his profession.

The books, therefore, are, for the most part, recent text books, and a very limited number of medical periodicals, which serve to complete the literary resources of most physicians. However extensive the collection, this will be

its general character. In its place, this class of works is indispensable, but we have arrived at a stage of professional advancement, when this kind of a library is not sufficient. We need one containing, as nearly as possible, all the ancient, mediæval, modern and current literature of the profession.

It is hardly practicable to have extensive and varied collections, except in public libraries. In our private collections we have one of the elements required to make up this variety. All those of us who have been long occupied in the profession, possess copies of a few old books that are becoming rare. They are scattered about; one or two being in possession of each of a large number of the practitioners of the city and country, rotting on shelves, because never consulted by their possessors. Having been long superseded by modern works, they are practically valueless in private libraries as books of reference. As curiosities, we may treasure up such works as those of Hippocrates, Galen, Celsus, etc., among ancient authors; or even the modern writers, as Cullen's *First Lines*, Good's *Study of Medicine*, Dewees' *Midwifery*, Eberle's *Practice*, Fordyce on *Fevers*, Bell & Stokes' *Practice*, etc., all popular text books thirty years ago, but we would not at present think of relying upon their teaching in practice.

In our private libraries we must have the text books of recent date.

If medical men would send the kind of old books above mentioned to the public library, they would be useful to the whole profession, because accessible to all, and instead of being able to enjoy the benefit of only one or two old books, we would have the use of a large number.

It is not too much, then, to request the physicians of the city and the whole Northwest, to send such books as lie idly upon their shelves, to the library of the Medical Press Association for safe keeping. Our librarian will write in them the names of the donors, the date, and

other items calculated to identify the gift, and give due credit for the bestowal.

The resources of the organization make the accumulation of contemporaneous literature an easy matter. The list of exchanges received for the JOURNAL AND EXAMINER, now numbering nearly one hundred periodicals, and increasing every month, while it affords the profession extensive facilities for keeping abreast of the times, will furnish the shelves of the library with over one hundred volumes annually. Add to this the reception of reviews of all American and many foreign medical books and pamphlets, and it will be seen that our library must grow. We have already been placed under obligations to several physicians in the city for donations of books and volumes of popular periodicals for several years back, and have the promise of a still greater number.

Will the whole profession of the city and neighborhood join us in this enterprise? If they will, the formation of a large and useful library will be the work of but a very few years.

THE *Bouffe* IN MEDICINE.—The *New York Nation* of Dec. 23, 1875, contains an article which illustrates, in a striking manner, the introduction into politics of the central idea of the comedies of the *opéra bouffe*. The complete inversion of the moral world and the social institutions handed down to us from the past, as exhibited in the *Grande Duchesse* and the *Belle Hélène*, are mirrored in the pool of New York politics, whose slimy depths have been exposed to the eye of the world.

But the portraitures of the *bouffe* characters can be detected as well in certain circles in Chicago.

For example, during three successive days of last month, there hung, like a pall over this city, a horrible and disgusting stench, that emanated from one of the rendering establishments on the outskirts of the town. The impalpable and nauseating effluvium entered the nostrils of four hundred thousand people. They ate it with their

chops at breakfast, drank it in the evening cup of tea, inhaled it alike in the parlor and bed-room. More than this. It filled hundreds of sick chambers with a revolting suggestion of the charnel-house, and poisoned the air respired by thousands of delicate infants struggling for existence against the other disadvantages of city life. Whose business was it to abate this nuisance that revisits the city ever and again with a recurring periodicity? Not the business of the Board of Health, certainly. It is true that the salaries of these officials are paid out of the pockets of the sufferers. It is true that they report, periodically, the abatement of a certain number of nuisances, while this great head and front of all nuisances obtrudes itself persistently upon the public. Is it, also, true that the proprietors of these rendering establishments occasionally see the officials of the Board of Health, and that the latter are also on such occasions "seen"?

The reason for all this lies in the fact that the Board of Health of Chicago rests upon a political basis, from its august head to its petty policeman. No young medical aspirant, with ambition and ability, need ever hope to obtain official connection with it, by acquiring a knowledge of sanitary science. The medical profession of Chicago is no more responsible for its organization, than for the conduct of a pork-packing establishment. Intimate acquaintance with the "short-haired" element—influence with "the Bosses" and "the Boys"—this is the sole avenue of ingress. This is the *bouffe* stage, gentlemen, where, before the foot-lights, *Prince Paul* and *General Boum* act their droll parts for their own pecuniary profit.

Another illustration of this principle, is to be found in the recent exposure of the officials connected with the Cook County Insane Asylum—an exposure made by a committee of medical men appointed by the Chicago Society of Physicians and Surgeons. In this institution nearly three hundred insane patients are collected. Surely, one would think, the man who is charged with

the professional care of its inmates, is an expert in all the forms of mental and nervous disease—a man who has at least acquired some reputation as a skillful and judicious practitioner. By no means. There was reason for thinking the physician of this asylum had never even received a degree in medicine. The assistant physician was found to have acquired all his lore in one course of lectures attended in this city. The warden, an official superior to both of those just named, was found to be a local politician, the retention of whose position depended upon his party affiliations. This, gentlemen, is the result of the *bouffe* principle—the result of an inversion of the rules by which men are guided who do not perform on the comic stage.

One of the leading milk-dealers of our city has long endeavored to secure a rigid system of milk inspection in the interest of those who desire to supply a perfectly pure article for city consumption. There is probably not a respectable physician in Chicago, unconnected with any of its various boards, who does not consider such a measure absolutely essential to the comfort and welfare of the community. Yet all efforts in this direction have proved utterly futile. It is because, gentlemen, they do not do these things in the *bouffe* opera.

All this will be remedied in time. The men who have secured their positions by political influence will be in turn supplanted by men who possess a greater influence. But the medical profession of Chicago, exerting its authority through the committees of its medical societies, has already made itself felt before grand juries and judges and the public. It has tasted of power, and, in accordance with a natural law, will, in the end, exert that power to its fullest extent.

Meantime the Offenbachian doctors will exhibit their travesty of the medical profession to the general public, surrounded by their motley short-haired acquaintances. On with the play; the curtain will fall the sooner!

WE NOTICE in the *British Students' Journal and Hospital Gazette*, of Nov. 6, a sharp censure of the medical schools of England. The inefficiency of instruction in the schools is deplored, and the prevalent habit of teaching almost exclusively by lectures is strongly condemned. "From 40 to 80 per cent. of their students are 'plucked' at the examinations of the Royal college of surgeons and other examining bodies." The students are defended as not being either lazy or deficient in brain power; the whole trouble is with the teachers; the zeal of the students is thrown away for "want of a proper guide to direct their studies"; "the cut-and-dried lecture that has done duty for successive generations of students should be dispensed with"; "the demands of science and of the examination room are, demonstrations."

One reason given for so great a per centage of failures is, that, while examinations are "more practical than formerly, the mode of education remains pretty much the same."

We are surprised at this. We had supposed the instruction given to students in England was much more thorough and practical than in our own country, and especially that it was the examiners, not the teachers, who were fossilized.

Perhaps, nevertheless, the critic is right. We most heartily agree with him, however, that the formal lecture through important, is not most important. More instruction should be given by recitations; there should be more of demonstration and more actual observation. The lecture is a great relief to the monotony of continuous reading, and adds greatly to the ability of any one to acquire knowledge. He who hears told the thing he has read, in a different fashion perhaps, retains it doubly well; the lecture is, as a means of education in medicine, a great addition to that of reading. The actual observation of a thing as a phenomenon; the working out of an experiment or a demonstration, and, more than this, the obligation to tell about it, are a great step in advance of both

reading and hearing. That knowledge which is gained through the eye and by actual experience, is easiest acquired and is impressed upon us most indelibly.

The medical colleges in America will have inaugurated a grand reform, when, even if they have fewer or no more lecturers, they have many more demonstrators and tutors and drill-masters. The number of the latter should be at least equal to that of the former—it is a question whether they should not be more numerous.

WE RECOMMEND to an early and earnest consideration of the faculties of our medical colleges, the pointed remarks Dr. Gross makes in his "History of Amer. Med. Literature" on the subject of *Medical Theses*. "Of this variety of medical literature," he says, "our colleges have huge piles, for every spring large additions are made to their archives, usually badly written, not unfrequently ungrammatical, generally devoid of scientific information, and of no use to anybody, for it is not too much to say that not one in fifty affords the slightest evidence of competency, proficiency or ability in the candidate for graduation. Often, indeed, they are not composed by him; and occasionally they are plagiarized, or copied, it may be *verbatim*, from such books as are within his reach, if not actually from the works of his preceptors. Happily for the credit of the schools, few of these productions find their way into print. * * It would be well if, on the birthday of American Independence, a bonfire could be made of this trash, as it exists, without exception, in all our medical schools; and it is devoutly to be wished that the regulation which prescribes the presentation of the inaugural dissertation were abolished." Will the colleges free themselves of this nuisance?

Clinics.

MERCY HOSPITAL.

Clinic by PROF. N. S. DAVIS, December 11, 1875.

PARTIAL PARALYSIS AND DISEASE OF SPINE.

CASE I. The first case presented to the class was a laboring man, aged about 28 years, naturally strong and muscular. He stated that he had been subject to occasional attacks of asthma for several years, and last week had considerable cough and soreness in his chest, which had been relieved by an expectorant mixture from the Dispensary.

His present complaint is of general weakness, with pain, more or less acute, in the right side, sometimes extending to the shoulder, and which he attributes to "liver complaint." By a systematic questioning, and physical examination by the professor, the history and symptoms of his case were more fully and accurately elicited, as follows: About two years since, the patient first began to feel a numbness and prickling sensation in his toes and feet, which has continued, with steadily increasing weakness more especially in the right foot and leg; dull pain in the dorsal portion of the spine, with difficulty of raising himself from a stooping position, and some unsteadiness in walking. During the last six months he has had pains, sometimes acute, in the right side, extending from the right margin of the epigastrium along the lower margin of the ribs, and up to the lower angle of the right scapula. There were occasional slighter pains taking the same direction in the left side. He also complained of a distinct sense of numbness and constriction, like a band around the body, just along the lower line of the epigastric and hypochondriac regions. There was well marked tenderness to pressure over the fourth, fifth and sixth dorsal vertebræ, with slight prominence of the

spinous processes, but neither auscultation nor percussion elicited any evidence of pulmonary disease, or of alterations in the viscera of the abdomen. There was some tendency to constipation, with impairment of digestion. After calling attention specially to such symptoms as were of direct diagnostic value, the professor remarked that the partial anæsthesia of the right foot, leg and side, with impairment of muscular motion, pointed to disease in some part of the cerebro-spinal nervous centres, while the definite sense of numbness, like a band around the trunk of the body, and the free, healthy condition of the upper extremities, equally point to some part of the spinal cord below the junction of the cervical with the dorsal portion of the spine, as the special seat of trouble. These facts, with the tenderness to pressure and percussion over the middle part of the dorsal portion of the spine, led to the conclusion that the patient was laboring under a chronic grade of inflammation of the meninges and connective tissue of that portion of the spinal cord, more especially the right half. And from the length of time since the first symptoms were noticed, it was inferred that some degree of thickening and hypertrophy had taken place in those structures, with atrophy of the nerve cells.

The prospect of recovery depends upon the extent of these changes, and the ability of the patient to comply with the conditions most important in the management of his case.

Treatment. Rest in a recumbent position as much of the time as possible ; moderate, but persistent, counter-irritation over the affected portion of the spine ; alteratives with anodynes internally for the first two weeks, and subsequently the more tonic class of iodides, constituted the treatment recommended.

CASE II. The attention of the class was next called to a little girl, aged five years, who had first been presented to the class four weeks previously, with well marked paralysis of the portio-dura of the seventh pair of nerves on

the right side of the face. At the time of her first presentation in the clinic, her mother stated that about four weeks previously, the child had been attacked with acute pain in the right mastoid region, accompanied by local tenderness and some swelling, with considerable general fever. The pain and fever disappeared in a few days, but slight swelling over the mastoid process and under the ear of the right side, with hyperæsthesia of the scalp over nearly all of that side of the head, and complete loss of expression in the same side of the face, remained. The child received no medical treatment, and continued in the condition just mentioned, until her first visit to the clinic four weeks since. At that time, the right upper eyelid drooped a little, and the lids failed to close during sleep; an effort at laughing caused the mouth to be drawn largely to the left; and there was a little swelling, apparently from periosteal thickening, over the right mastoid process, and hyperæsthesia in touching the hair or scalp over the right temporal and right half of the occipital regions. In all other respects the child appeared well. The diagnosis then made was, that the child had been attacked with subacute inflammation of the periosteum covering the mastoid part of the temporal bone and adjacent areolar tissue, accompanied by sufficient plastic exudation to cause thickening of the inflamed structures, and pressure upon the trunk of the portio-dura nerve, where it passes out from the cranium. After the first few days, the fever and more acute symptoms subsided, but leaving that nerve paralyzed, and the occipital and temporal branches of the fifth pair involved enough to cause the hyperæsthesia of the right side of the scalp. With this view of the nature of the case, it was stated that the leading indications for treatment were, to remove the slight inflammatory action still remaining, and to cause a more complete disintegration and reabsorption of the exudative material that still pressed injuriously upon the trunk of the nerves. To accomplish these purposes, the following alterative and ano-

dyne mixture was ordered: $\mathcal{R}$. Sodi. Iod., 3 ijs; Hydrarg. Bichlorid., gr. i; Tinct. Conii, 3 iv; Syrup. Prunus Virg., 3 iv; Aquaë, 3 iij. Mix.

The mother was directed to give the child twenty drops in a little water, four times a day, for the first week, and three times a day the second week, and then bring her again to the clinic. This was done, and when she returned at the end of the second week, the only noticeable change was less hyperæsthesia of the right side of the head, more perfect closure of the eyelids during sleep, and no perceptible swelling either behind or beneath the lobe of the ear. Still there was no visible action of the muscles of the right side of the face in laughing. The same prescription was continued three times a day for one week longer, and then reduced to twice a day. During the third week the mother began to notice some expression in the right side of the face, which has steadily increased, until now, at the end of four weeks from the commencement of the treatment, the paralysis is entirely removed, and the child appears well. The class was cautioned against the too prevalent custom of adopting a routine treatment by electricity, strychnine, etc., for every case of paralysis, without due attention to the special pathological conditions causing the paralysis.

COOK COUNTY HOSPITAL.

SERVICE OF PROF. JOS. P. ROSS. (Reported by D. A. K. STEELE, M.D.)

CASE I. *Peritonitis—Death.*

D. F., æt. 24; Irish, laborer; admitted Aug. 18th, 1875. Has been in poor health for the past year, suffering from "erysipelas of the legs," as he called it. Six weeks ago he began to suffer from headache, anorexia and pain in the sides. About three weeks ago he was attacked with nausea and vomiting at night and with severe diarrhœa. The latter has continued to date, with

occasional vomiting after eating. He has been steadily losing flesh in the meantime. Pulse 132, and feeble; temperature, 101° F.; respirations, 36; tongue dry and red at the edges; pain in the head, sides and abdomen; four stools daily, thin and yellow; abdomen very tympanitic. Was ordered emulsion of laudanum and turpentine, with eight grains of quinine daily.

Aug. 20th, A. M.—No better, did not sleep well; four stools in the night, three this morning. Abdomen still distended with gas; tongue furred and dry, red at tip. Pulse, 114, small and feeble; temp., 100.2; resp., 36. P. M.—Pulse, 120; temp., 99.2; resp., 32.

21st, A. M.—Pulse, 90; temp., 98; resp., 30. Rested well; three stools during night; pulse larger and stronger; tongue covered with heavy white fur. Heart is displaced upwards; fluctuations found all over abdomen, which is very tender on pressure. P. M.—Pulse, 120; temp., 101.2; resp., 36. Two stools during the day. Ordered one grain of crude opium every four hours, and turpentine stupes to the abdomen.

22nd, A. M.—Slept fairly; pain not so severe; abdomen distended with fluid, and exquisitely tender on pressure. Pulse a little stronger; tongue coated white; pulse, 90; temp., 98; resp., 36; considerable dyspnoea; two stools last night, one this morning.

23rd.—Pulse, 132; temp., 101; resp., 24; pulse very small and feeble. Has not slept. Three stools during night. Cannot retain his medicine.

27th.—Slept well; does not suffer much pain; vomits everything but milk. Tongue still heavily furred and dry. Pulse, 108.

26th.—Pulse, 126; very weak; vomits frequently.

Sept. 4th.—Patient continued sinking and died to-day.

Autopsy, twelve hours after death, revealed extensive inflammation of gastro-enteric tract, also of peritoneal membrane; firm adhesions of all abdominal viscera. Abdomen contains a quantity of flaky serum.

CASE II. *Cirrhosis—Pleurisy with Effusion—Endopericarditis—Death.*

C. J., æt. 68; German, laborer; admitted Aug. 28th, 1875. Patient unable to give an explicit history, but states that he has had a cough for three or four months. Three weeks ago he had a chill, followed by fever and an aggravation of the cough. Expectorated thick, yellowish white sputa. He is well nourished, but the circulation is sluggish in hands and face. Abdomen, ascitic. Admits that he has been a hard drinker. Pulse, 120, feeble and irregular; temp., 99.2; resp., 26. Tongue, furred and whitish.

Percussion dullness, purely bronchial breathing, crepitant rales, and increased vocal resonance over lower right chest. Exaggerated respiratory murmur over upper portion of right and whole of left chest. Hands and face cyanosed; dyspnœa excessive. Was ordered, every two hours, quinine and opium.

Sept. 1st.—Patient weaker; anorexia; dyspnœa more marked. Pulse extremely feeble and irregular.

Sept. 8th.—Death.

Autopsy, eight hours after death. The right pleural cavity was filled with fluid, right lung collapsed; no crepitation.

Pericardial sac filled with fluid; its inner surface and the outer surface of heart covered with lymph. Left ventricle very much hypertrophied; aortic and mitral valves thickened and roughened. Liver cirrhotic, small and nodulated, spleen softened and disorganized, abdomen filled with fluid.

Kidneys congested and indurated; smaller than normal. Dura mater everywhere adherent to cranium; membranes covered in places by lymph and adherent to brain; venous congestion of the latter; its substance softened.

CASE III. *Alcoholism.*

J. C., æt. 39; American, printer; admitted Sept. 10th, 1875. States that he has been drinking quite freely for the past three weeks, and during the last week has been

drunk nearly all the time, eating little or nothing. Has had almost continuous diarrhœa during this period ; recently the stools have become dysenteric. He is well nourished, skin about normal, eyes congested, pupils dilated. Constant muscular tremor, and marked insomnia. Discharged, cured, after treatment by opium, chloral, and potassic bromide.

CASE IV. *Severe Colicæ Pictorum and Palsy from use of a Cosmetic.*

Maggie P., æt. 21 ; American, housewife ; admitted July 12th, 1875. Was always well enough to do her work until two weeks ago, when she had severe gastric and intestinal pain with vomiting ; her bowels had been loose, but then became constipated. For the past four years she had been using, daily, a cosmetic of carbonate of lead. Previous similar attacks were relieved by treatment.

Patient is anæmic ; pulse, 90 ; temp., 98 ; tongue furred and dry ; blue line around margins of gums ; eyes puffy ; appetite poor ; constant pains across the stomach, and vomiting. Paralysis of the extensor muscles of forearm giving the "drop wrist" ; metallic taste in the mouth.

Recovery, Sept. 18, after exhibition of ten grains of potassic iodide three times daily, and disuse of the cosmetic.

CASE V. *Double Pleurisy—Paracentesis—Death.*

T. B., æt. 35 ; Irish, coachman ; admitted Oct. 11th, 1875. Patient was well until one week ago when he exposed himself to a draft of cold air while perspiring freely. The same night he had a severe chill, followed by fever and pains in the head, body and limbs, also severe sticking pains in the right side below the nipple ; could not take a long breath, began to cough, pains aggravated by coughing. These symptoms have continued ever since. For the last four days has been unable to lie upon the left side.

Patient is well nourished, skin hot, tongue heavily

coated ; pulse, 114 ; temp., 101 ; resp., 36. Complains of loss of appetite ; pain in right chest ; he coughs and expectorates a thick, white, tenacious sputum.

Respiration almost wholly abdominal, loss of motion and partial obliteration of intercostal spaces in right side. Percussion gives flatness over the right chest anteriorly and posteriorly below the line of the nipple ; no distinct postural change of line of dullness.

Diminished respiratory murmur and absence of vocal resonance over lower two-thirds of right chest ; exaggerated respiratory murmur throughout left chest, with mucous and sonorous rales ; a few moist rales are also heard at apex of right chest ; tubular respiration below right nipple anteriorly. Taking of a mixture of ammon. muriat., tart. emet. and morphia, the patient did pretty well until Oct. 14th. That morning he complained of severe lancinating pains in lower part of left chest, and the examination detected distinct pleuritic friction below the nipple ; applied hot flaxseed poultice, and ordered Dover's powders of gr. x each. In the afternoon the condition of the patient grew much worse ; dyspnoea and cyanosis of the face had risen to an alarming degree, and on physical examination an exudation was found in the left pleural cavity. Under such circumstances Dr. Ross performed paracentesis of the right thorax, and, by means of the aspirator, withdrew about two quarts of a straw-colored serum. The patient felt great relief immediately after the operation, but after a restless night he rapidly failed, and died on the next morning.

Autopsy, six hours after death. Extensive exudation of lymph upon costal and pulmonary pleura of right side ; about two quarts of serum in right pleural cavity. Left pleura roughened slightly, old adhesions present ; about one quart of serum in left pleural cavity.

Summary of Progress in the Medical Sciences.

I. ANATOMY AND PHYSIOLOGY.

1. *Congenital Myo-Sarcoma of the Kidneys.* J. COHNHEIM. (*Virch. Arch.* LXV; *Centralb. f. chir.*, 1875, No. 51.)

A girl, aged one year, died of a large tumor which filled the abdominal cavity almost entirely, crowding the intestines to the right side, and the diaphragm upward, and completely compressing the bladder. The post-mortem examination showed this tumor to have grown out of the substance of the left kidney. The larger half of this kidney still existed in the shape of a small, smooth appendix, clinging to the tumor. This was composed of a great number of smaller roundish tumors, and one such tumor was also contained in the right kidney, which otherwise was of a normal size. The tumors resembled the large fibrous tumors of the uterus, as well as medullary osteo-sarcoma. But the microscope showed that the larger portion was built up by *striped muscular fibres*; in a few smaller lumps only, the structure of the round-cell sarcoma was found.

The case is very interesting, on account of the size and large mass of the muscular growth, and because a neoplasma, mainly composed of striped muscular fibres, has never before been found in the kidneys. From the fact that both kidneys showed the same pathological condition, the morbid process may be considered as a "vitium primæ formationis."

2. *The Lymphatic Vessels of the Joints.* H. TILLMANN. (*Centralb. f. chir.*, 1875, No. 51.)

The anatomical distribution of the lymphatics, in the synovial membranes, has lately been made the object of histological studies by Tillmanns, in Leipzig. In order to inject these vessels, he filled the joint with a colored fluid, and tried, by alternate flexions and extensions, to force it into the lymphatics of the synovial membrane. Failing with this method, he injected a solution of nitrate of silver (half per cent.) into the tissues of the capsule by the hypodermic syringe. By this method he obtained very nicely injected preparations, and ascertained the following facts: The superficial lymphatic vessels are situated directly under the epithelium of the synovial membrane, but they have no open communications (stomata) with the cavity of the joint, like the lymphatics of other serous membranes. The finest capillaries of the blood vessels do not seldom crowd in between the epithelium and the lymphatics. Further on in the tissues, numerous and larger lymphatics are seen to wind around the blood vessels. The lymphatics of the capsule could never be traced into the osseous tissue, nor could any be discovered in the cartilage.

3. *A New Sphygmograph.* A. T. KEYT, M.D. (*N. Y. Med. Jour.*, Jan., 1876.)

This instrument, which the author claims embodies an original application and working out of a principle heretofore in use, resembles the sphygmographs previously in vogue, that of Marey most, but differs in the means of receiving and using the force of the pulse. While the older instruments made use of a metallic spring which was elevated at every pulse-beat, this one utilizes the elastic membrane and a liquid to "receive and transmit to the tracing lever the movements of the pulsating artery." There is a tube, with an expanded base, across the open end of which an elastic membrane is stretched; the other end of the tube is also expanded slightly, and has another elastic membrane covering its orifice. This tube being full of fluid, the membrane first described is pressed firmly against the artery—of course the membrane at the other end of the tube, through the medium of the fluid, pulsates with the artery. The broad, flattened head of a pin, rests upon this membrane, and rising and falling with every oscillation of the membrane, its impulses, by a simple contrivance, are transmitted to a tracing lever, and so the sphygmographic workings are registered. The tracings are made upon the surface of smoked glass, which is propelled against the tracing lever by means of clockwork, such as is used in Marey's sphygmograph. The instrument, as described, is ingeniously constructed, and has a number of mechanical devices for regulating, to a nicety, the working of the machine. The straight, vertical glass tube, with the expanded base and membrane, the tube graduated in inches and fractions, and filled with water, Dr. K. uses alone for the purpose of presenting to the eye, in the oscillations of the fluid, a representation of the pulse-beat. This he names the sphygmometer, and it forms a part of the sphygmograph, so that, by the simple turning of a thumb-screw, the instrument may be used as either a sphygmometer or a sphygmograph. By placing the bulb of the instrument over the apex of the heart—the patient being in the supine position—it is either a cardiograph or cardiometer at will.

The author thus summarizes the advantages of his invention: "The new sphygmograph is a very convenient instrument. It is light in weight, small in bulk, portable. It need not easily get out of order; the membranes even, if taken care of, will maintain their integrity for a considerable time, and when at last these show failure, they can be readily replaced by new ones. It can be easily placed and retained in position. It needs no strapping to hold it in position." "It is adapted to trace the pulsations of any of the superficial arteries; and, as a cardiograph, to trace the heart's pulsations with the same facility that it traces the arterial." "Such is the facility of its employment, that it entails upon the very feeble no uneasiness or annoyance, and the pulses of infants can, without trouble, be recorded by it."

Quite a number of tracings are shown, made on the same artery at the same sitting, with the new and Marey's instruments respectively, which, it must be said, give a very creditable exhibition of the capacity of the former.

4. *Physiological action of Lobelina.* OTT. (*Phila. Med. Times*, Dec. 11, 1875.)

Dr. Isaac Ott, Demonstrator of Physiology, University of Pennsylvania, has again favored the medical world with another admirable therapeutic study. This time he investigated the active principle of lobelia, and he gives the following conclusions as to its physiological action :

1. Lobelina, like nicotina and conia, paralyzes the motor nerves.
2. Lobelina does not destroy the functions of the sensory nerves or the striated muscles.
3. Lobelina, nicotina, and conia, depress the excitability of the spinal cord.
4. Lobelina destroys voluntary movement and co-ordinating power.
5. It temporarily decreases the pulse, followed by a subsequent increase, often beyond normal. Nicotina does the same. Lautenbach states that conia increases the heart-beat.
6. This action on the pulse is due to an action on the cardio-motor ganglia, provided that atropin paralyzes the cardio-inhibitory ganglia.
7. Lobelina, nicotina, and conia, temporarily decrease the pressure, followed by a rise much beyond normal.
8. This increase of pressure is due either to a peripheral vaso-motor action, or to an excitation of the spinal vaso-motor centres.
9. Lobelina, nicotina, and conia, paralyze the pneumogastriacs.
10. In large doses it paralyzes the vaso-motor centre, both to direct and to indirect irritation.
11. Lobelina, nicotina, and conia, accelerate the respiratory movements.
12. After section of the vagi, lobelina and conia cause no increase of respiratory movements.
13. It increases and then decreases the temperature; nicotina and conia decrease the temperature.

II. OTOTOLOGY AND SURGERY.

1. *A New Method of Inflating the Middle Ear.* JOS. GRUBER. (*Allg. Wiener Med. Zeitung*, 1875, No. 42.)

In order to force air into the Eustachian tubes without using a catheter, the upper pharyngeal space must be tightly closed against the fauces. This is accomplished in the simplest way by the act of deglutition as shown by Politzer's method. *But the same can be achieved also by simply crowding the root of the tongue against the posterior portion of the palate while a forcible expiration is made simultaneously.* During this procedure the root of the tongue shuts off the cavity of the mouth against the fauces and pushes the soft palate backward and upward, and the simultaneously expired air raises the soft palate so much that it forms a complete diaphragm between the fauces and the space above the velum palati. The expired air,

therefore, escapes neither through the mouth nor through the nose, as one can readily prove by holding a light before the nose and mouth; it will not be moved by an air current as it would be if the air passed out of these orifices. Even an unintelligent person can carry out the desired movements of the tongue and velum palati by pronouncing such monosyllables as hack, hick, hock, huck. And by holding the tongue in the position which is necessary for the pronunciation of ck, (orkk), the patient can, at his pleasure, keep the naso-pharyngeal space closed against the fauces for some minutes. This new method is executed like Politzer's : when the ivory tip of the air bag is inserted into one nostril and the nose hermetically closed around it with the fingers of one hand, the patient is directed to pronounce one of the above syllables while the bag is emptied. The advantages Gruber claims over Politzer's for his method are:

1. It does away with the swallowing of water against which many patients have a great antipathy (!), especially because they dislike to drink out of a glass which was used by other persons.
2. One can force the air into the middle ear for some time in succession, because the patient can prolong the pronunciation of kk.
3. One can auscultate the middle ear.

2. *Styptic Cotton in the Treatment of Otorrhœa.* THOS. G. MORTON.
(*Philad. Med. Times*, 1875, No. 205.)

Encouraged by the success Morton obtained in a case with the styptic cotton about two years ago, he has since used no other treatment in a large number of cases of otorrhœa, and always with the same excellent result. Before using the cotton, the ear should be thoroughly cleansed with tepid water and the canal then wiped out; then a portion of the styptic cotton (large enough to fill the meatus) is carried in until the plug rests close to, but is not in contact with, the drum. The first plugs should be changed daily, then less frequently; no pain arises from the use of this preparation. As styptic cotton becomes friable and breaks up after a few months' exposure, it should be made fresh from time to time.

3. *Salicylic Acid in Aural Discharges.* J. J. CHISOLM, M.D. (*Western Lancet*, 1875, No. X.)

Seeing reports of the advantages derived from sprinkling powdered salicylic acid upon the surface of chronic ulcers, it was inferred that this new disinfectant may prove of value in aural surgery. Dr. C.'s experience was chiefly with the acid in powder diluted with calcined magnesia or oxide of zinc; though the pure acid could be very safely applied to the discharging tympanic membrane. He used one part of salicylic acid to two parts of magnesia. The ear being thoroughly cleansed, the powder was blown into the ear through a quill or a laryngeal powder-blower. The effect in all cases has been good; its controlling influence being much more marked in some persons than in others. In most cases the application has to be repeated daily before the aural discharge is stopped.

4. *Salicylic Acid as a Dressing for Wounds.* (*Philadelphia Med. and Surg. Rep.*, Jan. 1.)

At a society meeting in London, lately, Mr. Callender brought forward a series of cases illustrating the use of this agent as an application to wounds. The following preparations were chiefly employed: (a) Phosphate of soda, three parts; salicylic acid, one part; water, fifty parts. (b) Salicylic acid, one part; olive oil, forty-nine parts. (c) Salicylic acid, one part; bicarbonate of soda, half a part; water, 100 parts. Summing up his observations, Mr. Callender arrived at the following conclusions: Putting together its good points, he found that salicylic acid was free from odor, and so far was acceptable to the patients; that wounds healed under its influence, and, during the progress of repair, were free from bad smells; that, unless strong with spirit, or but little diluted, it did not cause local pain. Its bad points seemed to be these: That, above the strength of two per cent., it caused local irritation, with some constitutional disturbance; and if the patient had a delicate skin, even the weak preparation was a source of trouble; that there was more discharge from a wound dressed with salicylic than there was when carbolic acid was used; that its influence upon a recent wound, as after an operation, was not efficacious against the occurrence of decomposition as was that of carbolic acid, chloride of zinc, or of boracic acid; that the repair of a wound was less active, and the granulations, if any, more flabby than when other simple or antiseptic dressings were employed. On the whole, while admitting its use as a local application to be fairly commendable, Mr. Callender thought it inferior in its antiseptic properties to other agents, and did not consider it to be a remedy meriting the strong recommendations which had been given it by some of those who had made trial of it.

5. *Injections of Carbolic Acid in Poisonous Wounds.* KLAMANN and DORING. (*Allg. Med. Centralz.*, 1875, Nos. 99 and 101.)

Klamann reports the following case: On July 9, a young man who was stung in the nose by an insect, called on him with œdema of the right eyelids, and considerable swelling of the right side of the nose. The use of an ointment of carbolic acid did not arrest the inflammation, and by the next evening the whole right half of the patient's face was frightfully swollen. About fifteen minims (one gramme) of a two per cent. solution of carbolic acid was injected by an hypodermic syringe at the little red point which indicated the bite of the insect. The patient almost fainted, but the effect of the injection was quick. Within twenty-four hours the œdema disappeared and the patient was completely cured.

In Doring's case the œdematous infiltration had extended from the fingers to the shoulder in twenty-four hours after an insect had deposited some poisonous matter in a recent scratch of the skin at the dorsal side of the right hand. The skin of the swollen arm was hot, purple, and in

three places it showed a dusky color. The patient, a robust man, was quite feverish. Five hypodermic injections, of fifteen minims each, of a two per cent. solution of carbolic acid, were made—three injections into those discolored spots and two above the line of œdematous infiltration into the healthy tissues. In the afternoon the injections were repeated, and the arm was dressed with cold water compresses during the night. On the 17th, patient felt better; the redness and swelling of the arm had decreased in intensity; the dusky spots had disappeared; four subcutaneous injections. And the following day the arm was all right.

6. *Sutures of Tendons.* TILLAUX. (*Centralb.*, 1875, No. 2.)

The tendons of the extensor of the little and ring fingers were torn by a hook; the wound healed, but one month later the two fingers were bent into the palm of the hand and could not be used at all. By the use of Esmarch's bandage, Tillaux tried to search for the tendons, but he could find the peripheric ends only. Exposing the tendon of the middle finger, he made a buttonhole in it, put the peripheric ends of the tendon of the little and ring fingers through it and fastened them together by a metallic suture. Extension and flexion of both fingers were completely restored by this operation.

7. *Removal of the Anterior Five Tarsal Bones and the Heads of the Metatarsal Bones.* W. W. DAWSON. (*Cincinnati Clinic*, 1876, No. 1.)

This operation was first performed by P. H. Watson, who gave an account of it in the *Edinburgh Med. Journal*, April, 1874. It is effected by making an incision on the inner and outer sides of the foot, between three and four inches in length; dissecting the soft parts off the dorsal and plantar surfaces of the tarsus, from the outer and inner sides, until the whole extent of the osseous tissues to be removed is deprived of its soft coverings; the diseased spongy bones, then, are removed by disarticulation and the use of a key-hole saw. Dawson performed this operation successfully on a little girl, æt. 6 years, in November, 1874. About eighteen months previous to the operation she was struck on the dorsum of the right foot. The blow did not seem to be a hard one, but violent inflammation followed it, involving first the soft parts and passing thence to the tarsus. In July, 1874, an abscess was formed on the inner border of the foot; when it was opened the tarsus was found in a carious condition. Another abscess was formed, to the distal side of the first, and the junction between the tarsus and metatarsus was found to be involved in the disease. The suffering of the child was very great; the pain at night unusually severe, and the foot exceedingly sensitive. Watson's tunneling operation was performed, the surgeon following his directions very closely; and by the use of Esmarch's bandage there was not an ounce of blood lost. The result has been most satisfactory; with her shortened foot the girl walks without a limp.

8. *Treatment of Varicocele and Attendant Irritability of the Genital Apparatus by Compression.* Dr. RAVOTH. (*Berl. Klin. Wochenschr.*, 1875.)

The apparatus employed by Dr. Ravoth is a combination of the suspensory bandage with an additional appliance for producing pressure, which differs from the apparatus hitherto in use and which has been condemned by Mr. Syme and others, in that it affords an easy and regular compression. It is claimed that without irritating, it accelerates the circulation and restricts the determination of blood to the parts involved, increases the tone of the vein and *cremaster*, and empties the vein by compression over the regurgitating blood column.

The first case cited, and the only one which for the sake of illustration may be cited here, is one of a number treated successfully by the method under consideration.

X., a student, age 21, suffers from a left-side varicocele, which dates back to his 16th year. He is unable to assign a cause. No evidence of hereditary predisposition. Has never been guilty of onanism. Three years ago emissions became frequent, the number of which gradually increased until, at last, they occurred, at least nightly, often even twice in the night and during the day, also, without sexual desire or erection. There was a certain rudeness of demeanor and permanent despondency of mind. Patient of medium size, not of weakly habit, pale, expression dejected, and apparently older than he is. Appetite voracious, digestion, with the exception of sluggishness at stool, undisturbed. The varicocele is fully developed. The scrotum hangs loose and flabby, despite a suspensory bandage; measures 8 cmts. from the ring to the left testicle. Superficial veins are not dilated, neither is the spermatic cord. On the contrary, the left *venæ spermaticæ* have become considerably lengthened and form a cylindrical convolution around the testicle, atrophied to the size of a pigeon's egg. Upon pushing the left testicle somewhat upwards, the circumference was measured and found to be 12 cmts. The convolution has a flabby, doughy feel, but the veins may be easily distinguished from the *vas deferens*. No pain of any kind. Patient was under my care from June 17 to Oct. 19—four consecutive months. The treatment was begun with the application of the pressure-appliance in combination with the *suspensorium*, June 17th. During the first few days he had to learn how to manipulate and regulate the compressor. He increased the pressure by means of a *ratchet* two to three hours daily, and took it off altogether during the night. On July 2nd, there was a remarkable improvement. The length of the varicocele was only 6, and the greatest circumference $10\frac{1}{2}$ cmts. But two nocturnal emissions had taken place in the last eight days, and the diurnal waste had ceased altogether. July 8th, patient in great distress of mind; complained of a return of the emissions, and was directed thereupon to have his back rubbed morning and evening with a liniment composed of tinct. canth., 5.0; sp. form. 150.0, (this has been found also very useful in enuresis noct.), and to take drops consisting of acid. phosph. and aq. amygdal., aa 20—25 *ter die*, and at bedtime a

powder of lupulin, 0.3; camphor, 0.03. July 28, substantial improvement. Length of varicocele, 5; circumference, 10 cts. Both nocturnal and diurnal emissions ceased. Much improved in spirits. From this time on all other means were discontinued, the patient wearing the compressor only. Oct. 19, saw him for the last time. Was very well; rode horseback daily without any aggravation or increase of the varicocele, which immediately after a brisk ride measured 5 cts. in length and 10 cts. in circumference. The left testicle equaled the right in size and other qualities. The emissions have not returned.

In the remaining cases cited in this lecture, the best results followed upon the use of the compressor and *suspensorium*, without collateral measures.

Several English surgeons have recommended this method of treatment and reported favorably, to wit: Curling (*Lond. Med. and Surg. Trans.*, xxix, p. 259), Morton (*Dub. Quart. Jour. of Med. Sci.*, 1851, p. 319), and Thompson (*Monthly Jour. and Retrospect of Med. Sci.*, No. xix, November, 1848).

It is remarkable that these surgeons speak only of varicocele, while the secondary irritability is mentioned only by Morton.

Concerning the comparative frequency of varicocele the subjoined statistics are interesting and significant. Of 6,025 rejected, out of 17,540 enlisted in 1844, 229 were rejected for hernia, 424 for varicocele and 582 for varix. In 1845, of 13,370 enlisted, 4,146 were rejected, of which, 264 for varicocele and 227 for hernia. Of 140 cases of varicocele, 122 were left side, 6 right side and 2 double. Dr. Ravoth's observation yields 2 per cent. recti-lateral and 2 per cent. bilateral. These statistics show plainly the demand upon our attention, to which these affections are entitled.

Slavjansky has accomplished remarkable results by exciting the N. splanchnici by electricity, creating an acceleration of circulation in the cava, (*Arbeiten aus dem Physiol. Institut in Leipzig*, 1874). Though electricity and compression are widely different agents, there is yet a certain analogy in their *modus operandi*.

III. PRACTICAL MEDICINE.

1. *Strangulation of a Loop of the Ileum by a Band of the Mesentery.* JUDSON BRADLEY, M.D. (*Detroit Review*, January, 1876.)

A girl six years old, having previously enjoyed good health, was attacked suddenly after dinner, with pain in the abdomen. With all the symptoms of intestinal obstruction the child lingered ten days and died of inanition.

Post-mortem, there was found no intussusception, but a knot of ileum "bound by a band of what, on closer inspection, proved to be a portion

of the mesentery, holding in a peculiar manner about two feet of ileum so closely that nothing could pass." The mesenteric glands were enlarged, but there was no other pathological condition. The knot was about one foot from the cœcum, "and close to the spinal column on the right side." The author is at loss to account for the condition discovered.

[Is Dr. B. sure the child had not months before had a localized inflammation in the abdomen?—Ed.]

2. *Local Treatment of Chronic Dysentery.* T. GAILLARD THOMAS, M.D.
(*N. Y. Med. Jour.*, January, 1876.)

A case is here reported of chronic dysentery of five years' standing, following an acute attack, which had resisted about all the known or frequently used forms of treatment, administered by all physicians. The patient was a woman, who stated that during the five years of its existence acute attacks had been frequently engrafted on the chronic malady, apparently excited by indiscretions in diet or unusual fatigue. The smallest number of dejections daily, during the whole period was 8, but it was not unusual for 27 or more to occur. At the time the local treatment was begun she was in a "desperate condition" of debility. Dr. T. placed the patient in the left lateral position and under an anæsthetic, and, with the aid of a long duck-bill speculum and a retractor, explored the rectum to the sigmoid flexure. Washing off the mucous membrane it "was seen swollen, œdematous, hanging in hæmorrhoidal masses, and studded with deep ulcers with grayish bottoms. It was of a deep red, almost violet hue."

At a subsequent examination of the same character, from a swab of wet cotton on a whalebone rod, all the ulcers from the sigmoid flexure to the anus were lightly touched with commercial nitric acid. The cauterization was carefully graduated, so that the possibility of any sloughing was avoided.

Only a little pain was experienced on recovering from the anæsthetic, and the patient declared afterward that this gave her the first real respite she had had for five years. Two other similar applications were made at the interval of a week each, and the patient was practically cured. She soon returned to her home and declared herself well. Rest and the milk diet were insisted on during the treatment.

Dr. T. thinks, with care to avoid such cauterization as to produce sloughing, there is no danger of rectal stricture from the use of nitric acid. This treatment originated with Dr. R. B. Maury, of Memphis, Tenn., who had treated twelve cases, eleven of which recovered. The caustic he used, however, was nitrate of silver, in strength from the solid stick to that of a solution of a drachm to the ounce of water. He thinks the caustic is beneficial not only in stimulating the healing of the ulcers but in blunting the sensibility of the irritable rectum, thus restoring quiet to the whole intestinal tract.

3. *The Pathology of Follicular Disease of the Throat and Air Passages.*
 BEVERLY ROBINSON, M.D. (*Am. Jour. Med. Sciences*, January, 1876.)

This disease—the clergyman's sorethroat—is here held to be a follicular inflammation, and is due to a diathesis or constitutional tendency. The cases are characterized locally by "granulations" on the pharynx, velum, pillars of the fauces and tonsils. These are small glistening bodies, often not larger than a pin's head, and resembling herpetic vesicles covered by mucus. Sometimes there are unpleasant sensations in swallowing and more or less hoarseness and aphonia; sometimes neither of these. No constitutional character, other than that mentioned, specially predisposes to the disorder, nor does the work of public speaking necessarily do this.

Dr. R. believes that at the beginning of an attack there is an infiltration and thickening of the membrane, and that later there is an atrophic degeneration of the tissues—the mucous membrane, the submucous tissue and the muscular fibres underlying the membrane—by which there is an increase in the antero-posterior diameter of the pharynx. When the glands of the pharynx become ulcerated, as they frequently do, he believes it due to a want of nerve force from an interstitial *neuritis* of the nerves supplying the part. This neuritis explains also the symptoms of pain and disagreeable sensations in the throat, as well as the aphonia without laryngeal lesion, so frequently attendant on this disorder.

Local treatment alone is not competent to cure this affection—general treatment, as well, is always required.

4. *Post-nasal Catarrh.* BEVERLY JOHNSON, M.D. (Read before N. Y. Co. Med. Society, Sept. 27, 1875.)

Dr. Johnson thinks the disorder under consideration is little understood especially as to its pathology. Post-nasal catarrh is not ordinary rhinitis; it is not acute or chronic coryza, however the latter may predispose to it, but it is chronic *follicular* disease of the nasal and naso-pharyngeal cavities. He believes it to be merely a local determination of a diathetic state, and that it differs nowise in nature from chronic follicular disease of the throat and remaining portions of the air passages.

Follicular disease of the naso-pharyngeal space has two constant symptoms: 1st, a sensation of fullness and *stuffedness* in the region affected; and 2nd, the falling down from above the palate and posterior nares of particles of mucus, varying in physical characters. No other symptoms are pathognomonic. Sometimes this mucus may be seen trickling down the posterior wall of the pharynx. By the rhinoscopic mirror at times it may be seen hanging like stalactites from the roof of the pharynx. In advanced cases masses of this mucus become inspissated, thick and hard, and irritating the part produce ulcers and fetor. Ulcers are found on the septum, roof of the posterior nares and vault of the pharynx, and occasionally on the turbinated bones and walls of the nasal fossæ.

Systemic treatment is of first importance—iron, quinine, cod-liver oil, arsenic and strychnia for tonics. Such medicaments as, given internally, exert a beneficial effect on the glands and mucous lining of the throat and nose, are next of value.

Of medicines which act in the last mentioned way—when patients are free from any other diathesis, as herpetic, gouty, syphilitic, scrofulous and tubercular—he classes as most valuable, sulphur, cubeb and ammoniacum. The first he administers in the water of the white sulphur springs of Sharon, a tumblerfull three times a day. Of cubeb he gives fifteen grains of the powder, in a mixture, every two or three hours, for a number of days; and, after a few days of rest, resuming it again. Ammoniacum he gives in doses of j—iij grs. Local treatment is not so efficacious as usually supposed. The douche has been greatly abused, by being used with too cold solutions and too vigorously; great damage has been done to the organs of smell and hearing.

Solutions applied to the diseased part are usually too weak—yet there is great danger of making them too strong. The preferable local medication is by spray and powders. The spray should be used simply warm. The best formula is this: R. Acidi Carbol. liq. m xi; Boracis, Sodii bicarb. aa dr. ij; Glycerini, dr. viij; Aquam ad. oz. viij. Mix. Used morning and evening for five minutes by means of a hard rubber atomizer. Of powders to be thrown up behind the palate by a powder blower, he gives preference to one made of equal parts of powdered iodoform and camphor and two to four times the amount of powdered acacia—to be used one or more times daily.

5. *Pulmonary Collapse.* H. A. DUBOIS, M.D. (*Trans. Med. Soc. California*, 1874-5.)

The writer of this paper believes that in many cases of so-called lobular pneumonia in children, there is nothing but collapse of portions of the lung superadded to a bronchitis, either mild or severe. When in the midst of a bronchitis there occurs a sudden and permanent increase in the frequency of respiration without an apparent exaggeration of the inflammation, he believes the condition is quite sure to be one of collapse. Auscultation and percussion are of very small diagnostic value.

An illustrative case is recorded. A child of five years old had some obscure ailment that was guessed to be malarial; soon the breathing became rapid and symptoms of bronchitis slowly supervened. Shortly the respirations became 50—60 per minute, afterward they reached 80, 100, and finally 130, while the "pulse was never over 120—130 and frequently much lower, and a temperature never higher than F. 102° and often as low as F. 97.5°." For five months this rapid respiration had continued—long after all evidence of inflammation had disappeared.

All expectorants and depressing measures did injury; only food and tonics and stimulation were of any value. Dr. Dubois believes in all such cases the last mentioned treatment should be resorted to.

6. *Encephaloid Disease of the Lung.* G. G. TYRRELL, M.D. (*Trans. Med. Soc. Cal.*, 1874-5.)

A case is here reported of this disorder in a girl of fourteen, who had been previously healthy, developed insidiously and slowly at first, being such as might attend incipient phthisis. It was only seven weeks before the fatal termination of the case that the child was taken out of school because it was supposed she was studying too hard. A month later, when professional aid was called, the girl was able to walk about, had no subjective symptoms but shortness of breath and slight weakness. On examination, the left chest was found almost perfectly solid. The heart was crowded to the right side.

The growth developed rapidly, a tumor the size of a large cocoanut appearing under the arm, and death occurring by asphyxia in three weeks. Exploration of this tumor a few days before death, with the expectation of finding it an accumulation of fluid in the pleura, discovered it to be an encephaloid mass involving the lung.

IV. THERAPEUTICS.

1. *Treatment of Tapeworm by Creosote.* Mr. BRICKWELL. (*Med. Times and Gaz.*, Sept., 1875.)

The writer states that about fifteen years ago a man discharged from the army with lung disease and tapeworm came under his notice, when it occurred to him that the destructive properties of creosote to the lower grades of animal life might be made available for killing or so weakening the vitality of intestinal worms that they could easily be got rid of. He therefore gave him some, three times a day, shortly after meals, for six days, and on the seventh a dose of castor-oil and turpentine, which brought away a worm twelve yards long. He has since tried creosote for destroying round worms with great success. In one case a large mass of more than a hundred worms of all sizes came away, and the patient has not been further troubled by them. He has not succeeded so well with the troublesome thread-worms of adults, but has some doubts if the remedy were fairly tried. He has just had the following case of tapeworm:—W. E., aged twenty-three, laborer, pale, sallow, and sickly-looking, but fairly fleshy, came to Mr. Brickwell with hæmoptysis and symptoms of tubercle in the lung, which passed off, and he was able to work through the winter. Four months ago he came to him suffering with the prevailing malady, bronchitis, and he then first began passing portions of tapeworm. He deferred treating him for the latter until his health was better. A month ago he returned in fair health, having frequently passed portions of worm since his last visit. Mr. Brickwell gave him one drop of creosote made into a pill, with pulv. tragacanthæ co. three times a day, half an hour after each meal, so as to impregnate the ingesta. As the

stomach bore the medicine well for two days, he increased the dose to two drops three times a day for two more days, and then to three drops at a time for two more days. On the seventh day he gave him a dose of castor-oil (aperients acted strongly on the patient, or he would have combined it with *sp. terebinthinæ*). On the fifth day of the treatment, a worm eight yards long came away, and he had slight diarrhoea. Not seeing Mr. Brickwell, he continued the creosote on the sixth day, and took the oil on the seventh, which acted very freely, but brought no more worm away. There appear to have been no symptoms to indicate the presence of the worm until he began to pass portions of it. He had, however, complained of a feeling of weakness, sinking and faintness, for several years, more particularly in the evening. These feelings have now disappeared, and he is stronger, better, and more healthy-looking than before. The two points that struck Mr. Brickwell are—first, that he began passing the worm during a febrile attack (could that have influenced the vitality of the worm, and so tended to its passage?); and, secondly, that he had a chest complication. It is a curious coincidence, that these symptoms should have co-existed in the only two cases of tapeworm which have come under his notice.

2. *On Treatment by Means of the Stomach Pump.* Dr. PAUL SCHLIEP (*Deutsche Arch. f. Klin. Med.*, B. xiii; *The Practitioner*, 1875.)

Dr. Paul Schliep, of Berlin, has treated seventy-four cases of disease of the stomach in 982 sittings, with Küssmaul's stomach-pump, and obtained very satisfactory results. Among these were two cases of poisoning, one of arsenic and the other by a spirituous solution of lac; both cases recovered. Twenty-five cases of simple gastric catarrh (the pump being employed on the average nine times in each case); seventeen cases of gastric catarrh, complicated with other conditions, of which four cases were complicated with chlorosis, five with nerve lesion, four with pulmonary disease, two with jaundice, two with neoplastic formations in other organs, ten with *ulcus ventriculi* (three acute cases, the pump being used in the chronic cases about fourteen times); fourteen cases of *dilatatio ventriculi* (of which five were cured and four improved, and in which the pump was applied on the average twenty-one times); six cases of *carcinoma ventriculi*. Dr. Schliep, it will be seen, thus treated conditions with the stomach catheter which are usually left alone; and on the other hand, conditions, as ulcer and carcinoma, which it is usually considered unadvisable to treat with instruments that are likely to produce movements of vomiting.

The treatment of simple gastric catarrh with the pump is justified by Dr. Schliep, first of its success, and secondly, on its obstinacy under other methods. He found great benefit from it, even after a few sittings only—and explains it on the same principle that brilliant results are often obtained from an emetic. A recent gastric ulcer is often a *noli me tangere*, but considerable benefit was experienced in chronic and cicatrized ulcers. In cases of dilatation of the stomach, Dr. Schliep commenced his treat-

ment with daily complete evacuation of the stomach. If the muscular coat resumes its contractility, and the atrophy and degeneration of the glandular tissue have not proceeded too far, the abnormal decomposition that occurs in the gastric contents soon disappears. The effects of this mode of treatment on cancer of the stomach were decidedly alleviating. In performing the operation the patient must attend carefully to his breathing, must not bite the tube, and must first hold the head backwards, in order that the obstacle presented by the posterior wall of the pharynx may be surmounted, and then forward, in order to convert the projection formed by the bodies of the third and fourth cervical vertebræ into a concavity. Having entered the cardia, which can be recognized by the length to which the tube has passed, and a slight resistance, an effort should be made to see whether any anatomical change has taken place, which may be known by the occurrence of pain, strong resistance to the entrance of the instrument, and perhaps blood, mingled with the contents of the stomach when they have been pumped out. He finds cases of dilatation of the œsophagus above a stricture at the cardia offer the greatest difficulty to the introduction of the sound. The sound having been introduced, M. Schliep begins with the injection of several syringesful of water at about the temperature of the body, until the patient feels the stomach to be full, or vomiting sets in, after which he carefully extracts the fluid again. Care must be exercised in securing an instrument that works easily and well, so that the wall of the stomach may not be sucked into the openings of the sound. He does not attach any importance to slight tingling of the contents with blood, and remarks that strong alkaline solutions introduced into the stomach produce general hyperæmia and consequent bloody straining of the contents.

In order to remove adherent mucus from the walls of the stomach, he recommends that the patient should be made to execute several movements of vomiting by tickling the fauces, by means of movements of the tube, though this is usually unnecessary, movements of vomiting occurring spontaneously. In other cases, and especially where an ulcer is present, vomiting should be avoided as much as possible. Considerable caution should be exercised in withdrawing the tube, lest portions of the mucous membrane which have got sucked into the holes should be torn away.

Dr. Schliep distinguishes the contents of the stomach in different states into—1. Clear mucus, with neutral reaction, met with in simple chronic catarrh; 2. Yellow fluid, with neutral reaction, accompanying catarrhal inflammation of the stomach and duodenal mucous membrane in scleria; 3. Mixed contents, composed of undigested food and mucus, with, for the most part, slightly acid reaction; 4. Contents in a condition of acid fermentation, occurring in recent inflammatory conditions and ulcer; the prognosis is here good; the removal essentially effects a cure; 5. Contents containing abundance of fungi (*Leptothrix*, *oidium albicans*, *sarcina*), reaction acid, quantity sometimes extraordinarily great; the regular evacuation of the contents of the stomach greatly tends to remove the accompanying dilatation; 6. Putrescent contents (coffee-grounds like) often accompanying

cancer of the pylorus, with dilatation of the stomach; the quantity is here again very large and the reaction acid; 7. Abnormal gaseous contents.

Among the remedies used, Dr. Schliep enumerates the following as having been pumped in and again evacuated: Bicarbonate of soda, of which two teaspoonsful were added to a wash-hand-basinful of water, and injected, in cases where the reaction of the contents was strongly acid; potassium permanganate in the proportion of 1 to 100 of water, the quantity injected being again a wash-hand-basinful of water; used in cases where the contents were putrescent; carbolic acid, in the proportion of 1 to 40, though in this case the acid solution should not be allowed to remain long in contact with the mucous membrane; chloralum, boracic acid and tincture of myrrh, were respectively used in weak solutions, when the quantity of mucus secreted was large, and the membrane torpid. The diet was carefully selected, and food given only in small quantities at a time.

3. *Camphor in Erysipelas.* (*Gaz. des Hôpitaux*, 1874.)

M. Revillout states that he has several times had occasion to employ, with good effect in erysipelas, an application used by M. Delfech at the Neker. It consists in painting the affected surface with a solution of camphor in ether (equal weights); and when this is employed in erysipelas of the face, and the affection has not yet reached the hairy scalp, its progress is usually arrested. It is also very useful in erythema, caused by local irritation.

4. *On Surgical Anæsthesia in Infants by the Administration of Chloral by the Stomach.* BOUCHUT. (*Bulletin Gén de Thérapeutique*, Oct. 30, 1875.)

The writer gives his conclusions as regards the action of chloral in infants, which differs materially from that in adults. It may be given in doses up to forty-five or sixty grains, without provoking pyrosis, gastritis, vomiting, or diarrhœa, and it produces anæsthesia more or less complete. He has employed it repeatedly in cases of chorea, cerebral rheumatism, opening abscesses, and tooth-drawing. Sleep and absolute insensibility have been obtained by a dose of forty-five to sixty grains given in one draught.

A similar result may be obtained by means of suppositories, but the rectum is more irritable than the stomach, and tenesmus, heat and irritation occur if the method be employed for many days. The stomach is the best channel for the administration of chloral in infants. A quarter of an hour after taking the full dose anæsthesia commences, and is completed at the end of an hour.

When it is necessary to apply Vienna paste to a nevus, or to open an abscess, or draw a tooth, chloral is indicated.

The child may groan and move, without waking, whilst the operation is being performed, but then falls again into a passive condition, and on awakening some quarter of an hour later, it is unconscious of having suffered pain, and has been spared the fright of seeing the operator.

V. OBSTETRICS.

1. *A Case in which the Fœtal Heart was heard early in Pregnancy.* UNDERHILL. (*The Obstetrical Journal of Great Britain and Ireland*, November, 1875.)

The reporter of this case says he first visited the patient while she was suffering from typhus fever, on 6th September, 1874. A thin, lax abdominal wall readily enabled him to detect, by palpation, the outline of the enlarged uterus. With the stethoscope he "distinctly heard the double pulsation of the fœtal heart," "beating at the rate of between 160 and 170 pulsations per minute, while the mother's pulse was only about 120." A fortnight in the hospital sufficed to cure her of her fever. "She was delivered of a very large and healthy child, the writer says, "on the 8th of March, 1875, that is to say, six calendar months and two days, or 183 days, after I heard the fœtal heart, which was, taking 278 days as the average duration of pregnancy, only 96 days (13 weeks and 5 days) after the supposed successful coitus."

2. *Gestation continued Three Months after Rupture of Membranes, and Labor Pains lasting Thirty-six Hours.* Dr. N. J. RAINS. (*American Med. Weekly*, Nov. 27, 1875.)

The subject of this observation was hoeing in her garden, 5th of June last, when she felt something "break and give way," as she expressed it, and about two gallons of water, in a few minutes, escaped. Labor pains soon set in and continued thirty-six hours, when they spontaneously subsided, at which time Dr. Rains saw her. He soon left her, with instructions to be recalled upon the return of the pains, which he supposed would soon set in again. He was recalled upon the return of the pains, which did not come on again, however, until three months had elapsed; and he then delivered her of a large, healthy child, after an easy labor.

3. *Sloughing of Uterus and Bladder as a Sequel of Labor.* EMMET. (*Med. and Surg. Reporter*, January, 1876.)

The following case is reported by Dr. Emmet, from the New York Woman's Hospital:

At the age of 23 the patient was taken in labor with her first child, and about forty-eight hours after, the waters ruptured, and a child weighing fourteen pounds was delivered by means of the forceps. The condition of the patient was favorable for two weeks, when she noticed that her urine dribbled away by the vagina. Two weeks afterward, or one month after labor, she passed some large sloughs. These sloughs were preserved by her physician, and, on examination, proved to consist of two masses—one of them consisting of the placenta, and the other the base of the bladder and cervix of the uterus.

At this point the main interest of the case rests, and, unfortunately, it is involved in obscurity. The point referred to is this: Under what circumstances did the accoucheur, after delivering a child of fourteen pounds, neglect to see that the placenta was delivered? The only explanation possible, without gravely impeaching the competency of the attendant, is to suppose that the cord, with a portion of the placenta, came away, and, from causes not explained, the deficiency was overlooked. Another question to be considered is, did the remaining placenta, directly or indirectly, cause the extensive sloughing of the pelvic viscera? This is another question difficult of solution, though, from the time intervening between the labor and the passage of the sloughs—one month—it is fair to assume that the retained placenta did have an influence. When the patient entered the hospital, nearly five months had elapsed, and her condition then was as follows: On placing the patient on her back and separating the labia, a prolapsed fundus of the bladder was discovered. When this was replaced by a sponge probang, no sign of uterus could be discovered. When she was examined by the rectum, a small nodule was discoverable in the place that should be occupied by the uterus. After a careful examination of the case it was decided that no operation for the closure of the base of the bladder could be successful, from the fact that there was not a sufficiency of tissue. It was then decided, with the consent of the patient, to perform an operation for the closing of the vagina. This was done, and after it was performed the patient enjoyed comparative comfort.

4. *The Management of Abortion.* Dr. W. D. HAZZARD. (*Virginia Med. Monthly*, December, 1875.)

On being called to a case threatened with abortion, my invariable rule of practice is first to ascertain as nearly as possible the stage of the pregnancy, frequency and the extent of the pains, the amount of hæmorrhage, and the cause, if known, that has induced the symptoms present—whether they be habitual, or accidental, immediately predisposing or exciting. Having elicited all the information I can from the patient or her friends, I then institute an examination per vaginam. If I find the os uteri dilated and flaccid, with expulsive pain at the menstrual periods, whether attended with hæmorrhage or not—if the os be dilated to any considerable size, I regard the case as of doubtful character and make my prognosis accordingly. But if I find the os uteri firm and undilated, even if I find hæmorrhage attended with severe pain, I regard the case more favorably; and if the other symptoms warrant the belief that the fœtus be living, I make the effort to save the conception. I endeavor to bring my patient as speedily under the influence of opium as possible. Having done this, I endeavor to keep her under the influence of the drug as long as any symptoms remain of pain or hæmorrhage—experience having taught me that many cases may be carried to a favorable termination that under a more temporizing treatment would result in miscarriage. I am thoroughly

convinced that many cases of abortion are caused by nervous irritability of the uterus, resulting in an intolerance to the presence of the foetus in the womb; hence nature endeavors to rid the organ of its contents by expulsive efforts. If this irritability be overcome by the free and full administration of the sedatives and narcotics, the pregnancy may oftentimes be saved.

I do not think authorities have laid stress enough on the importance of thorough investigations in such cases as I have spoken of, to enable the practitioner to make a clear diagnosis. Neither do I think they attach sufficient importance to the wonderful powers of opium, administered with the view of procuring its full effect. In my hands, it has seldom disappointed my expectations.

5. *A Case of Prolonged Gestation.* PROF. FRANK WELLS. (*Bost. Med. and Surg. Jour.; Obstet. Jour.*, Dec., 1875.)

Mrs. M., a lady of great intelligence, had sexual intercourse with her husband on August 27, 1874, two days after the completion of her monthly period. On the following day her husband was called away by business, which detained him from home until the existence of pregnancy had declared itself to his wife by the cessation of the catamenia. She quickened in the early part of January, 1875, and naturally expected to be confined about the 3rd of June, for which period she engaged her nurse. Labor did not come on, however, until June 26th, nor was it completed until the following day, exactly three hundred and four days from the date of sexual congress.

The birth, which was a tedious one, necessitating the application of the forceps, was chiefly characterized by the almost entire absence of liquor annii, only sufficient being discharged to make upon the sheet a stain of the size of a silver dollar. The child, which weighed eight and one-half pounds, looked as though it had been, in a measure, macerated in the amniotic fluid, its skin being loose and wrinkled, and the epidermis peeling off in strips. At this date (November, 1875), the child (a boy) is healthy and vigorous, and weighs eighteen and one-half pounds.

The case is remarkable, not only for the long continuance of the gestation, but also for the undoubted evidences of the absorption of some, at least, of the liquor annii through the cutaneous surface of the foetus. That this must have been the case is indicated by the fact that as late as the eighth month the child was quite freely movable in the uterine cavity, which shows that at this time there must have been some fluid in which it could float; and still further, by the absence, during gestation, of all painful motions of the child, which would undoubtedly have been felt, had the solid contents of the womb come in direct apposition to the uterine walls, without the medium of a protecting fluid.

VI. GYNECOLOGY.

1. *Paralysis from a Retained Pessary.* Dr. GERVIS, London Obstetrical Society. (*Med. & Surg. Reporter*, January, 1876.)

At a late meeting of the Obstetric Society of London, Dr. Gervis exhibited a pessary which had been removed from a patient fifty-six years of age. Fifteen years previously, it had been introduced in the vagina to relieve prolapsus of the womb. Four years ago she began to feel a weakness in the lower back. Two years ago her legs became weak, and she was unable to walk without assistance. For six months she has been bedridden. For the last six months she has had discharge from the vagina, occasionally tinged with blood, and highly offensive. She can neither stand nor walk, and is able to move her legs in bed with difficulty, being attacked two or three times during the night with cramp in them. On examination, a large round metallic pessary was found imbedded in the vaginal walls, and was removed by the aid of bone forceps, a considerable quantity of brownish purulent discharge, horribly offensive, escaping. All the paralytic symptoms were relieved after its removal. Dr. Cleveland remarked that, apart from the interest attaching to the long impaction of a foreign body in the vagina, there was the notable fact that a quantity of highly offensive putrid matter must have been locked up for a considerable time, without the supervention of septicæmia. The case tended to show, in connection with the recent debate before the Society, the necessity for the co-existence of some peculiar condition of the general system before absorption of morbid matter, followed by blood-poisoning, could be effected.

2. *Cases Showing the Importance of Making a Careful Physical Examination.* By CLEMENT GODSON, M.D., Assistant Obstetric Physician to St. Bartholomew's Hospital. (*The Obstet. Jour.*, Dec., 1875.)

CASE I.—On August 14th, 1875, C. N., single, aged seventeen, of excessively anæmic appearance, applied at the out-patient room, stating that she had been losing large quantities of blood from the vagina since Christmas; had been regular from fourteen years of age up to that time; had never missed a period. Cannot say that she has been free a day since Christmas; is sometimes deluged with blood, and passes large clots. Previously never suffered from menorrhagia or leucorrhœa.

The under-garments, even the petticoats, were found saturated with blood. The abdomen showed no signs of enlarged uterus. The cervix uteri was ascertained by vaginal examination to be short, the os patulous the uterus retroverted, but freely movable.

The patient was admitted into the hospital.

For two or three weeks, complete rest, with the cold douche, and the administration, first of ergot and subsequently of cannabis indica in large doses, also the replacement of the uterus by means of a pessary, were tried, but with little or no improvement. On September 6th, some

cotton wool saturated with tr. ferri. perchlor. was passed into the uterus. It seemed to grate over a roughened surface towards the fundus. This only served to increase the hæmorrhage.

On September 14th, the os uteri having previously been well dilated by tents, I passed my finger into the uterus, and detached from the fundus a quantity of soft pulpy tissue, having very much the appearance of decidua. From this day the hæmorrhage ceased entirely, and the patient left the hospital on October 12th, perfectly recovered.

CASE II.—On October 7th, 1875, S. E., aged forty-seven, was led into the out-patient room, supported by two friends, walking in a doubled-up position, the face expressive of great suffering. She stated that she had been married twenty-one years, and had had eight children and five-miscarriages, the last, a child, seven years ago. Catamenia commenced at thirteen years of age, and continued with regularity up to three years ago, excessive in quantity during the last ten years. No appearance for the last three years. Has been subject to leucorrhœa ever since marriage. Three weeks ago was seized with violent pain in lower back and abdomen, which has never abated, and prevents her from sleeping. This is accompanied by a discharge from the vagina, of a brownish color, sometimes sanious, and very fetid.

No abdominal swelling was detectable. A vaginal examination showed the cervix to be very short, smooth and indurated, the uterine walls to be felt bulging from it on all sides, the os patent, and a quantity of sloughing tissue protruding from it. Uterus quite movable.

The patient was admitted into the hospital, and in the evening a sponge tent was inserted.

On the following day I introduced my finger into the uterus, the os being well dilated, and with the aid of the ovum forceps I succeeded in removing all the sloughing mass which I could feel attached to the posterior wall. The odor from this was very fetid, and I washed out the uterus with a weak solution of iodine. A few days subsequently a slight attack of pelvic cellulitis occurred, and some deposit was detected posterior to the cervix. This, however, soon cleared up. The uterus is now quite movable, the patient is free from discharge and pain, and her general health is rapidly being restored.

CASE III.—On October 6th, 1875, E. B., aged thirty-two, applied at the out-patient room, her face very sallow and expressive of pain.

Has been twice married, thirteen years ago to first husband, by whom she had two children; eight months since to present husband. Catamenia regular till five months ago, up to which time was quite well. Since then there has been a continual discharge from the vagina, which is either like pure blood, or is of a brownish color, and is very fetid; sometimes passes large clots.

Physical Examination.—Roof of vagina transformed into an irregular mass; the os uteri very patulous; in the centre of it the tissue in some parts very dense, in others friable, breaking down and bleeding

when touched. The hand on abdomen comes upon a well-defined swelling, reaching almost to the umbilicus, pressure upon which is directly conveyed to finger in vagina. On abdominal auscultation the foetal heart can be plainly detected. *Mammæ* very attenuated; turbid serum can readily be squeezed from nipples.

The patient was admitted into the hospital.

On visiting the ward on October 11th, I was informed that during the night a large quantity of watery fluid had suddenly passed from the vagina, and the patient had been in intense agony ever since. She was rolling in the bed with pain; her pulse almost imperceptible, and so rapid it could hardly be counted. I found the os uteri dilated as widely as seemed possible without the tissues being rent, and the foetal head was presenting. The patient was at once placed under the influence of ether, and I perforated the head, and subsequently the chest, and succeeded in extracting a foetus (as far as I could judge, of nearly six months' development) through quite a small aperture, without having exerted any undue force in traction upon it. The placenta soon followed, and there was hardly any loss of blood.

She gradually sank, and died on the 13th from exhaustion. The autopsy showed no signs of a rent in the uterine structure.

Remarks.—These cases show the importance of a careful physical examination. In the first there was no history of pregnancy, or even coitus, ever having taken place; a vaginal examination was insufficient to discover the cause of the hæmorrhage, and it became necessary to explore the cavity of the uterus before the origin was ascertained. In the second case the symptoms were rather those of carcinoma, and the vaginal examination alone revealed the real nature of the disease, a submucous fibroid sloughing. In the third case carcinoma of the cervix was believed to exist, and the patient had been treated for such by her medical attendant, but no idea of pregnancy existed. There was no history to lead to such supposition. It was the examination of the abdomen alone which led to the discovery. It shows, therefore, the importance of extending the investigation further than a mere vaginal examination.

3. *Note on the Discharge of Ova, and its Relation in Point of Time to Menstruation.* Dr. JNO. WILLIAMS, M.D. (*The Obstet. Jour. of Great Britain and Ireland*, Dec., 1875.)

The exceeding great value of all observations made on this subject by physicians, capable of properly investigating it, is the only reason for giving so much space to it. The reporter, Dr. Williams, assistant obstetric physician to University College Hospital, London, read this paper before the Royal Society of London, last May.

It is a recognized fact in physiology that ova are discharged in connection with the menstrual function, but it is uncertain at what time in the course of the month the separation takes place. It is generally understood to occur towards the end of the discharge, or immediately

after its cessation. I have, however, reason to believe, from observations made in several subjects, that such is not the case, but that it takes place before the appearance of the monthly flow with which it is connected. The cases which have come under my observation fall into four series, as follows:—

A. Cases, six in number, in which a Graafian follicle had been matured and actually ruptured.

(1). The first of these was a young girl who died through the effects of a fall, three or four days before the expected return of the catamenia. In the left ovary was a recently ruptured Graafian follicle. The cavity of the follicle was about $\frac{3}{4}$ inch in diameter, and contained a recent clot, which projected slightly through the rupture; the clot was of a fresh red color, nowhere adherent to the parts around, for on making a section through the follicle it fell out. The wall of the vesicle was of a pale yellowish color, and slightly wrinkled. The rupture had evidently taken place a short time only before death.

(2). The second subject was a woman who died suddenly through a fall, probably a fortnight after the cessation of the last menstrual flow. On examination a considerable quantity of blood was found in the cavity of the peritoneum, and the liver was torn. In the left ovary was a ruptured follicle, with corrugated and collapsed walls; its cavity contained no blood, but there was a slight effusion between its lining membrane and its outer coat. The depth of the follicle from the rupture to the furthest point of the opposite wall measured nearly $\frac{3}{4}$ inch. It is not impossible that this follicle was ruptured somewhat prematurely by the shock of the fall.

(3). The next example was observed during life. Mr. Christopher Heath performed ovariectomy on a patient on the fourteenth day after the cessation of the last catamenial discharge. Menstruation lasted usually three days, and the patient had always been regular every four weeks. In the ordinary course of things the next flow would have appeared in eleven days. When the diseased ovary had been removed, the remaining one was raised up, with a view to see if it were healthy, and it was observed that it contained an enlarged Graafian follicle, which became ruptured when being held in the hand. I ought to add that the flow returned three days after the operation, and eight days before it was due.

(4). The next case was a young woman who died of pleurisy on the fifth day of menstruation. On the surface of the left ovary was a rough, brownish-colored, star-like cicatrix. On section, there was seen under the cicatrix, a corpus luteum, dilated in the middle and narrow at both ends, nearly $\frac{3}{4}$ inch in length and $\frac{1}{2}$ inch in width; its walls were in some parts of a pinkish and in others of a yellowish color, slightly, if at all, thicker than those previously mentioned, and had small prominences on its inner surface. In the centre was a partially decolorized clot, which was but slightly adherent to the surrounding walls. From these characters it is evident that the rupture of the follicle had taken place several days before.

(5). The fifth member of this series was a patient who died on the fourth day of menstruation, and about the ninth of typhoid fever. One ovary contained a corpus luteum similar to the one just described.

(6). The last example occurred in a young girl, who died of pneumonia six days after the cessation of the catamenia. On the surface of the right ovary was a small cicatrix, beneath which was a corpus luteum with the following characters:—It was of an irregular, elongated shape, nearly $\frac{1}{2}$ inch in length and $\frac{1}{4}$ in width; had thick, yellow, convoluted walls, and enclosed a small whitish mass, in which were two dark-colored spots, which were evidently the remains of a clot. This ovary contained also a Graafian follicle of the size of a small pea. The determination of the age of effused blood is always difficult. In the Graafian follicle which becomes ruptured without impregnation taking place, it is known that certain definite changes occur; the wall of the vesicle becomes thick, yellow, and convoluted; the blood which flowed into it and filled it becomes decolorized and absorbed. The exact length of time in which these changes in the follicle are brought about, is not accurately determined; but it is known that the corpus luteum of one menstruation has become considerably atrophied by the return of the next.

It appears to me that the yellow body in the last example of this group was considerably older than the two preceding ones, and that it was more than a fortnight old, and that the two preceding ones were from eight to ten days.

B. Cases, four in number, in which a Graafian follicle had been matured and hæmorrhage had taken place into its cavity, but no actual rupture had occurred.

(1). The first case was a patient who died of pyæmia in the third week after the cessation of the last catamenial flow. The left ovary contained a follicle $\frac{3}{4}$ inch in diameter, distended by a recent non-adherent, softish coagulum, uniform in consistence and color. This follicle was prominent above the adjacent surface of the ovary; and its superficial wall was thick, and presented no tendency to point or rupture. There was no recent rupture to be seen on the surface of either ovary.

(2). The second example was a woman who had undergone an operation for fistula in ano. The monthly flow made its appearance a week before the expected time for its return, and she died five days after. One ovary contained a follicle measuring $\frac{5}{8}$ inch by $\frac{3}{4}$ inch; this follicle contained a bright red, fresh, loose clot, and its walls were thin and not corrugated. From these characters it appears that the hæmorrhage into the follicle had taken place but a short time before death.

(3). The next was a patient who had undergone an operation for the removal of an ovarian tumor. She died a fortnight after the operation, when she had menstruated for one day. At the inner extremity of the left ovary was a large, dark-colored, softish mass, which, on section, proved to be a Graafian follicle containing a brick-red-colored clot, which appeared to be of a spongy texture. It could with difficulty be turned out of the sac. After its removal it was seen that the wall of the sac was formed by a thin yellowish substance.

(4). The last example in this group was a person who suffered with fibroid tumor of the uterus. She died on the third or fourth day of the menstrual flow. Both ovaries were bound to the surrounding structures by tough and firm false membranes. The left contained a follicle nearly an inch in length, in which was found a softish, dark-colored clot, having a spongy texture, which appeared to be several days old.

In the first and third members of this group hæmorrhage had taken place into the follicle unquestionably before the appearance of the catamenial discharge.

In the second, hæmorrhage had occurred before the flow had become due; but the latter, owing to surgical interference, having returned a week before its time, the hæmorrhage took place while the discharge was in progress.

In the fourth, the condition of the clot makes it almost certain that the hæmorrhage had taken place before the appearance of the catamenia.

C. *One case, in which a Graafian follicle had matured, but where neither rupture nor hæmorrhage had actually occurred.*

This was a patient who died of typhoid fever just before the appearance of the catamenia. In one ovary there was an enlarged Graafian follicle, which was highly vascular, and projected like a nipple beyond the surrounding surface. It was evidently on the point of bursting, and it is doubtful whether rupture of the follicle or the appearance of the discharge would have first taken place.

D. *Cases, three in number, in which no Graafian follicle had become enlarged to the size exhibited by it at maturity.*

The first was a patient in whom the menstrual flow had almost ceased. There was no rupture in either ovary, but the right contained a Graafian follicle about the size of a small pea.

The next was a young suicide, who died three days after the cessation of the catamenial discharge. There was no recent rupture in either ovary, but the left contained a follicle similar to the one seen in the preceding case.

The last member of the series was a girl who died of peritonitis, caused by the rupture of an abscess on the right ovary. In the left was a Graafian follicle about the size of a small pea, but no recent rupture. The state of the lining membrane of the uterus showed that in this case menstruation was imminent.

Besides the appearances described, there were in all the preceding cases numerous Graafian follicles, varying in size from a millet-seed downwards, together with some superficial pits and atrophied corpora lutea.

These cases appear to me to bear out the opinion stated at the beginning of this paper, that, in the great majority of subjects, the discharge of ova takes place before the appearance of the menstrual flow with which it is connected; for in ten out of the fourteen, rupture of a follicle, or hæmorrhage into its cavity, had occurred before the return of the catamenia; in one it was doubtful whether rupture of a follicle, or the appearance of the discharge would have taken place first; in two a

menstrual period had passed without maturation of a follicle; and in one a periodical discharge was imminent, though the ovaries contained no matured Graafian follicle. It is not improbable that the follicles which were found in the last three cases, and which were enlarged to the size of a small pea, would have become mature by the next return of the flow.

I have carefully considered the cases recorded by Cruikshank, Jones, Paterson, Lee, Girdwood, Negrier, Côté, and others, and find that, though they do not contribute materially to the solution of the question discussed in this paper, yet, in so far as they go, they favor the view put forward here—a view which derives support from the custom imposed by the Levitical law, and observed to this day by the stricter sect of the Hebrew community.

POSTSCRIPT.

Since writing the above, I have had opportunities to examine two subjects in whom the date of the last menstruation was known.

The first was a girl, aged seventeen years, who died on the fifth day after admission to the Middlesex Hospital, of traumatic tetanus. She was said to have ceased to menstruate just before admission; and the condition of the inner surface of the uterus confirmed that statement. The uterus and ovaries were small and imperfectly developed. On the surface of the right ovary was found a patch $\frac{1}{2}$ inch in diameter, slightly injected, and presenting a punctated appearance. In its centre was a cicatrix, appearing as a white spot, beneath which was situated a yellow body, elongated and irregularly flattened in shape. This appeared to be due to pressure from several Graafian follicles growing in close proximity to it, the largest of which was as large as a small pea. The yellow body measured nearly $\frac{1}{2}$ inch in length; it had folded walls, and in its centre was a thin elongated clot, the middle of which was of a dark color.

The second subject was aged twenty-six years; she died of Bright's disease. The last menstruation began May 13th, ceased May 19th, and death occurred May 28th, fifteen days after the appearance of the flow. Hæmorrhage had taken place into the superficial tissue of the ovaries, probably by reason of the condition of the blood.

In the right was a small superficial prominence formed by a yellow body, which measured about $\frac{3}{8}$ inch in diameter; it was throughout of a yellowish color, and contained no trace of the coloring matter of blood. On comparing these organs with one another and with those previously described, I am led to infer that in the first, 12 to 14 days, and in the second about 20 days, had elapsed since rupture of the follicle occurred.

Reichert has examined twenty-three organs in which signs of menstruation were recognizable. In four cases a Graafian follicle had matured but not ruptured, nor had hæmorrhage taken place, though the decidua menstrualis was in a state of greater or less development; in eighteen cases a Graafian follicle had ruptured, and hæmorrhage had taken place into the decidua; in one case only, in which bleeding had not begun, had a Graafian follicle been ruptured. The latter statement appears opposed to the conclusions at which I have arrived; but this is only apparent; for

in one case a follicle had ruptured, in four a Graafian follicle had matured before hæmorrhage began, and in one of these, rupture was on the eve of taking place; in eighteen, a follicle had ruptured, and hæmorrhage had taken place into the decidua menstrualis. Put in this form, Reichert's cases are not opposed to the conclusions arrived at in the preceding note; and as his cases have not been described, it is not possible to say what their actual bearing may be. The conclusion arrived at by Reichert, after examination of the twenty-three specimens, however, is, that rupture of the Graafian follicle takes place at an early stage of the menstrual flow.

4. *Early Menstruation.* ANON. (*Brit. Med. Jour.*)

"M.D." writes: I have now under my observation, a girl aged two years, who has menstruated regularly for some time. She is in perfect health, and her courses, which are in every respect natural in color, occur every month, causing her much discomfort and pain.

5. *Menstruation and the Law of Monthly Periodicity.* Prof. J. GOODMAN, M.D. (*Richmond and Louisville Med. Jour.*, Dec., 1875.)

The writer so admirably concludes his long article, that we cannot refrain from placing before our readers, in his own words, at length, the pretty definitely settled conviction of the profession at the present day on this vexed question:

The law of monthly periodicity is that which governs and determines the periodic return of those phenomena which collectively constitute menstruation, and must necessarily be the result and exponent of certain changes or series of changes that transpire within the organism in recurring cycles; these cycles being uniform in their duration, definite in their manifestations, and common to woman-kind. The essence or factor of the law, then, is a dynamic cycle of physiological acts. But in what part of the system does this cycle revolve? Where is the seat of these changes?

Not in the ovaries, as Tilt supposed, for their annihilation does not always arrest the action of the law.

Nor in the uterus, for women in whom this organ has been congenitally absent, have experienced unmistakable signs of monthly periodicity.

Paracelsus, DeGraff, and others located the process in the blood. Nature has negatived this class of theories by presenting us with the Hungarian Sisters, in whom the bloodvessels were united at the loins, thus giving them a common circulation, but their menstrual periods were different.

Tyler Smith has advanced an ingenious hypothesis, according to which the monthly cycle is attributed to reciprocal action between the uterus, ovaries, and mammae. But, as we have seen, two of these supposed agents may be withdrawn with impunity.

An affirmative answer to this question is just as easy and may be just as absolute as those in the negative. There is not the slightest doubt that the functional process by which the monthly cycle is accomplished

is seated in the ganglionic nervous system. The expansion of the pelvis, the growth of the breasts, and the increase of adipose tissue which take place when the young girl arrives at the age of puberty, depends upon a modification in the nutrition of the parts, and that nutrition throughout the body is presided over by the ganglionic nerves, no one at the present day will deny. In order to achieve such important variations from the previous course of nutrition, the nervous tissue itself must undergo structural development, which, as we have already said, like all other structural alterations, has a tendency to be permanent. In the course of this development, the elements of the law of periodicity are elaborated, and the series of changes constituting the monthly cycle are instituted, the operation of the law being usually declared through the circulation (by means of hæmorrhages), which, like nutrition, is controlled by the ganglionic system.

This is the limit to which inductive reasoning will carry us at present, and it is better to await the results of observations than indulge in vague conjectures. What the nature of the changes is, and in what part of the sympathetic system these occur, I leave to anatomists and experimental physiologists to discover.

The only practical bearing of these views to which I will allude at present, is with reference to the operation of 'Normal Ovariectomy.' The originator of this operation, Dr. Battey, anticipated that it would bring about an artificial menopause. In this he will certainly be disappointed in at least half the cases, but it does not seem to me absolutely essential to the success of the operation that it should arrest the progress of the law of monthly periodicity and put a stop to menstruation. That the ovaries continue, after puberty, to affect the general system, and that this influence is even necessary in many individuals to maintain the sexual development in a perfect degree, is undoubtedly a fact, as is shown by an appreciable loss, in some instances, of sexual traits, including the cessation of menstruation upon the removal of these organs. In diseased conditions of the ovaries, this reaction is perverted, and very distressing pathological states, especially of the nervous system, arise in consequence. Such examples are frequently encountered in practice, and a conclusive, though an anomalous, one has been referred to in a former part of this article. It is in severe and intractable cases of this kind that good results are to be hoped for from the operation alluded to; for it is reasonable to believe that when disordered action arises from an unnatural irritant, a withdrawal of the irritant will permit the functions to return to their normal channels.

VII. DERMATOLOGY.

1. *Proofs of the Dartrous Diathesis furnished by Comparative Pathology.* MÉGNIN. (*La France Médicale*, Dec. 4, 1875.)

The reporter, a veterinary surgeon of the French military service, assigns the cutaneous disorders of the lower animals to three grand divis-

ions: accidental, parasitic, and constitutional. He finds that the degree of domesticity has a modifying influence, those longest under subjection, as the dog, presenting cutaneous affections more frequently than the horse and the ox, which are less domesticated.

Lafosse observed psoriasis in the dog during four generations, the disease being transmitted from parent to offspring. Mégnin gives the details of the following case:

A young ox, of fine appearance and in good flesh, had an eruption of miliary vesicles, upon three years of age, in the spring of 1872. The eruption became rapidly confluent, and was seated exclusively upon the lumbar region, though it descended irregularly from the vertebral line on each side, to the extent of four or five fingers in breadth. There was moderate itching, followed in succession by the formation of granular crusts among the hairs, and a very abundant epidermic exfoliation, accompanied by alopecia. At the onset of winter, the animal presented in the centre of the lumbar regions, a denuded, smooth, rose-colored and shining surface, covered with large laminated, friable scales, readily detached by friction, and unaccompanied by itching or exaggerated sensibility. Sulphur and other preparations seemed to limit the extension of the disease, but did not produce a new growth of hair.

In the spring of 1873, there was recrudescence of the disease, the patch becoming larger in every direction, the newly invaded surfaces successively exhibiting vesicles, granular crusts, desiccation of the sero-albuminous secretion of the vesicles, loss of hair, and extensive epidermic exfoliation. Treatment had no greater effect than formerly. In the spring of 1874, there was a third attack, the disease affecting a surface extending from the throat in front to the base of the tail behind, and descending laterally to the middle of the costal region. The affection pursued the same course as formerly, but curiously enough, it respected all the parts colored by pigment and covered by red hairs. In July, the alopecia and exfoliation left the superior half of the trunk almost entirely bare.

When examined at this time, almost all of the superior part of the body presented an irregular surface, deprived of hair, and covered with large diaphanous laminated scales, adherent by one or two borders (third stage of eczema). In front, the affection was still in its initial period, the hairs were still in situ, but bristling and surrounded by granular crusts. At the base of the hairs could be seen the reddened skin, superficially ulcerated, and presenting all the signs of the second stage of eczema. In the midst of this dry, eczematous and laminated surface, were islets of sound skin, covered with red hairs. In all the affected parts, the skin preserved its normal suppleness and thickness, hence M. considered it to be an eczema, of what the French call the "herpetic" class.

Microscopic examination demonstrated that the superficial parts of the derma were alone affected, and the absence of parasites.

What follows is interesting, in view of the fact that the English and American schools of dermatologists are disposed to doubt the existence of

the dartrous diathesis, upon which depends the pathology of the French view. According to the latter, the symptoms detailed above, point to a constitutional diathetic affection.

Veterinary practice has this advantage over the treatment of diseases in the human body: the affected subjects may be killed at any stage of a malady to rectify a diagnosis, or to note the extent of the disease. In the instance of the ox whose case is described above, no disorder of the splanchnic viscera, nor of the vascular and muscular systems, was established post-mortem. All the bones, however, on section, presented a striking discoloration, which was noticed even by the butcher. Brown concentric rings also appeared, equal in number to the recrudescences of the malady; and suggested the well-known experiments of Flourens on chicken bones. Microscopically, the coloration of these zones appeared to be exclusively due to deposition of pigment granules quite analogous to those found in the skin. This fact tended to show a profound alteration of nutrition, effected by a disease whose principal manifestation was in the skin, *i. e.*, a constitutional disease.

The paper concludes as follows: In the view of Hardy, chronicity, tendency to relapse, simultaneous existence or alteration of lesions of skin and mucous membranes, and heredity (occasionally established), point to a morbid principle affecting the whole economy, and generating the dartrous diseases. The facts, cited above, give additional proof of the impregnation of the entire economy with the morbid principle, which is called the dartrous vice. It also adds to the experiments of Lafosse, referred to above, as showing the inanity of the anatomical theory, which can only discern in the dartrous diseases a local inflammation. This theory is still held by Devergie and some pupils of Cazenove.

It must be admitted that the advocates of a dartrous diathesis possess, in the details collected by Mégnin, the strongest argument yet advanced in support of their views.

2. Pellagra. BÉHIER. (*Le Progrès Médical*, Nov. 6.)

Two cases of sporadic pellagra having been discovered in the Hotel Dieu, Professor Béhier thus describes the cutaneous lesions:

These vary in appearance according to the period of observation. The cutaneous disorder has been properly called pellagrous erythema, for at the outset it is decidedly erythematous and, later, when there is profound alteration of the skin and the disease has become inveterate, the cutaneous manifestations are varied. The integument becomes dry, fissured and furrowed; later, a species of ichthyosis is developed (Strombio). After several successive attacks, warty and even horny tumors (Coldesini) appear. It is the Italian authors who have especially dwelt upon these exceptional forms, and several among them are more remarkable for their fancifulness than for their exactness of description. The eruption is chiefly located upon the hands and feet, but is also to be found upon the face and the lateral portions of the neck—situations, in short, which are not protected by clothing. When stockings are worn, the eruption will appear where

any holes are to be found; and in Landes the parts of the leg protected by the hunting leggings remain unaffected (Bouchard).

3. *Generalized Melanosis.* BERGERON. (*La France Méd.*, Nov. 13, '75.)

B. reports the case of a young silversmith, 21 years old, pale and emaciated, having reddish patches diffused over the skin—principally of the face—and slightly discolored mucous surfaces. He had never suffered from scrofula, syphilis, or other grave disease, and his hereditary antecedents were excellent. A series of painful tumors developed upon the surface of the integument of his chest, some attaining the size of the fist. In the first, the integument which covered it, was unaltered in color, but soon ulcerated, and gave exit to a bluish-black, semi-solid matter, exactly resembling wet powder. Spontaneous closure of the orifice occurred, and was succeeded by reformation of the umor. This second became as large as two fists, and, after a drainage tube had been inserted with no results, it was opened and again gave exit to blackish contents. Six similar tumors appeared in rapid succession soon after, but these were unaccompanied by pain. The first, having increased considerably in size and become more painful, was removed by the knife, no ganglionic enlargement having been found in the neighborhood.

On the 27th of October, spontaneous disappearance of two of these tumors had occurred, without the intervention of physician or surgeon.

These tumors were evidently situated in the subcutaneous cellular tissue, having but slight connection with the subjacent fasciæ. They were indolent, indurated, irregular and rough. The skin glided freely over their surface, but through it could easily be seen the black color characteristic of melanotic tumors. No lesion or tumor of the internal organs could be discovered. The only constitutional symptoms evident were: emaciation, feebleness and anorexia.

Though melanosis and melanotic cancer have certain symptoms in common, one need never be mistaken for the other, since the distinction between them has been clearly defined by Nélaton. The case reported is interesting, as no record has yet been made of the spontaneous disappearance of similar growths, nor of their occurrence in so young a subject.

4. *A Case of Argyria.* B. RIEMER. (*Arch. d. Heilkunde*, 1875, No. 4.)

A man, 43 years old, was treated for tabes with nitrate of silver, and had taken during two years about 550 grains. The whole integument, especially of the face, had assumed a gray hue, when he died of pulmonary disease. Silver was found in almost all the internal organs, but most abundantly in the skin. Numerous grains of pure silver were deposited in the connective tunics of the corium, chiefly in the vicinity of the small vessels, and in the tissues of the sweat-glands. No silver was found in the layers of the epidermis and the tunics of the lymphatic vessels. The writer is of the opinion that the deposition of silver is purely mechanical. By the secretory organs of the integuments, the reduced metal is removed from the blood, and, since it cannot pass through the epidermis, it remains beneath, and there accumulates.

5. *Feigned "Erythema Gangrænosum."* Fox. (*Lancet*, Jan. 16.)

The author states that he has always regarded the disease which answers to the term given above, with grave suspicion. In almost all cases it is feigned.

A stout and healthy-looking servant girl exhibited, in various parts of her body, long red patches; with scabs forming on the outer edge of each patch, leaving a narrow, red rim around it. Some of those broke up into irregular patches of dead white skin, surrounded by a reddish hole. Over the parts which did not become red, a slight, thin, brownish-yellow crust formed. Anæsthesia seemed to exist where the dead-white areas of skin were seen, with elevation of temperature. On the lower extremities, the general appearance of the eruption gave the idea that some corrosive liquid had run down the front of the leg, and caused the skin to lose its vitality.

When under observation in hospital, the dead-white patches began to assume a yellowish tinge, some becoming covered with a dark honey-colored crust, and some exhibiting a loosening of the cuticle. Deep, sharply-cut ulcers, surrounded by slightly red inflamed margins, were formed on the inner side of one leg. When the crusts mentioned above fell, a red blush was left upon the integument. Patches of white cuticle on the breast when rubbed off, left a weeping surface of true skin, which soon scabbed over. The ulcers healed readily.

This was decided to be a case of malingering on the following grounds: 1. The general health was undisturbed. True erythema gangrænosum occurs in the moribund condition, with profound alteration of nutrition. 2. The onset and course of the disease were those of severe blistering, not of a gangrenous disease. There was no livid sphacelated surface; a healthy reparative process was speedily set up. 3. The distribution of the patches was peculiar. They were located, with one exception, on the left side, in parts most accessible to the right hand. (The author does not observe that the patient was right-handed.) 4. The statements of the patient relative to anæsthesia conclusively showed deception. 5. The effect of pseudo-physic in the case confirmed the view taken above. (The patient had improved on a solution of sugar and water taken internally, the wounds being dressed with the simplest unguent.)

No reasons for practicing the deception were discovered, nor was the irritating agent known. The author supposed hydrochloric acid to have been used.

6. *Use of the Induced Currents in Zona.* Dr. FAUGUE. (*Tribune Médicale*, 1875, page 364.)

The author, (in his inaugural thesis, Paris, 1875, No. 37), recommends, according to the observations and practice of Dr. Picot (of Tours), the use of the induced currents for the pains, often so persistent, of zona. The positive pole should be placed at the side of the spine, and the negative pole upon the painful points.

7. *Treatment of Acne by Soft Soap.* HEBRA—LALLIER. (*La France Médicale*, No. 20, 1875.)

On retiring at night, the patient takes a small quantity of the soft soap upon the end of the finger, and lightly rubs with it the parts affected with acne. This delicate layer of soft soap is allowed to remain in place during the night, and is removed with tepid water in the morning. A single application is not sufficient to produce the desired effect, and hence the friction should be repeated for four consecutive nights. On the fifth day, this application is suspended, and the vapor of steam is substituted for four days. Where this is intolerable or impracticable, an emollient wash of bran or starch water is employed.

[We have found the bran water most efficacious in the pustular forms of the disease. If the face is affected to such an extent that coughing or sneezing produces an intense temporary congestion of the parts, the vapor of steam seems occasionally to favor this occurrence.—ED.]

Guillot concludes from his experience that the treatment of the different forms of acne by friction with soft soap, followed by the topical application of powders, douches or emollient lotions, is easily conducted, does not in general bring about inflammatory complications, and, in confluent cases, will relieve in from six weeks to two months. It is most serviceable in tubercular, pustular or punctate acne, whether these forms be isolated or concurrent; and although the roseolous variety may seem to be aggravated by the treatment, it is ameliorated, particularly when accompanied by a few simple or tuberculated papules. In moist sebaceous acne it is less available. There is no record of its employment in varioliform acne.

The treatment is highly satisfactory in its results, but patients must be cautioned to use only a small quantity of the soft soap at first, as an excess is sure to excite inflammatory action.

8. *Treatment of Infantile Eczema.* CASPARI. (*Bulletin de Thérapeutique*, page 29, 1875.)

Lime water is recommended in infantile eczema capitis and impetigo faciei. The dose varies with the age of the child, from 150 to 300 grammes. With older children, where the confluence of the disease excites pain and restlessness, the lime water is given internally, mixed with pure or diluted milk. The remedy is particularly praised in chronic and rebellious forms, which are ordinarily ameliorated after eight days of medication. External treatment is resorted to only when the secretion is exceedingly irritating, and then Caspary dusts the parts well with carbonate of magnesia. He recommends parents who are poor to wash the diseased surfaces once or twice daily, with a weak decoction of wood ashes.

9. *Silicate of Potassa in Erysipelas.* ALVARENZA. (*Centralblatt f. d. Chir.*, No. 35, 1875.)

A solution containing one part of the silicate to one or ten of water, is used externally, the silicate containing one part of silicic acid to four

parts of the potassic solution. The cure seemed to be rapid in proportion to the concentration of the solution. The author has collected notes of forty-eight clinical cases thus treated, and many others in private practice, having, on seven different occasions, relieved the disease in three days, using a preparation containing one-third or one-fourth of soluble glass.

10. *Collodion for Freckles.* (*La France Médicale*, Nov. 20.)

The mercurial preparations ordinarily employed for the removal of freckles, contain either the bichloride or the cyanide—sometimes both—and are not without danger. Good results may be obtained without resorting to these, by mixing forty-five parts of collodion with five of pure alcohol and one of the essence of lemon. Finally, one part of the sulphophenate of zinc is reduced to a very fine powder and mechanically mixed with the solution.

11. *External Application of Carbolic Acid in Cutaneous Diseases.* BERNDGEN. (*Allg. Med. Central Zeitung*, Nov. 20, 1875; *Archives of Derm.*, January.)

In chronic eczema, B. employs acid. carb. cryst., 5.0; spts. vin. dil., 10.0; aq. destill., 120.0—applied with a brush every morning. In recent cases, 20 per cent. watery or oily solution is used, either as a wash or dressing. It is considered too irritating for the acute stage. He claims great benefit from this topical medication in psoriasis; and, in inveterate cases, recommends acid. carbol., 2.5; spts. vin. dil., aq. dest., aa 10.0. It should be discontinued in from three to four days. In prurigo, five per cent. solutions are advised.

12. *Treatment of Alopecia Areata.* J. H. STOWERS. (*British Med. Jour.*, August, 1875.)

The author has repeatedly used, with good success, the liquor ammon. caust. and spir. terebinthinæ. The first named remedy is to be rubbed into the scalp with a piece of flannel twice daily, or less often if it causes much irritation. If the ammonia is not tolerated well, he advises the use of turpentine. This treatment must be continued for several months.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

A TREATISE ON THERAPEUTICS, Comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By *H. C. Wood, Jr., M. D.*, Professor of Botany and Clinical Professor of Diseases of the Nervous System in the Med. Dept. of the University of Pennsylvania, etc., etc. Second Edition, Revised and Enlarged. Philadelphia: J. B. Lippincott & Co. 1876.

The appearance of the second edition of this work within a twelvemonth of the issue of the first edition, is a quiet testimony to the superiority of the volume, which needs no commentary or qualification. This book contains about 150 pages more than its predecessor. The subjects additionally treated of, are Coffee and Tea, Tobacco, Arnica, Eucalyptus, Picric Acid, Lithium, Oxalate of Conium, Gelseminum, Jaborandi, Salicylic Acid, Cold and Heat, and Electricity.

The author in his preface says that, "The old and tried method in therapeutics is that of empiricism, or, if the term sound harsh, of clinical experience." * * "The plan of the present work has been to make the physiological action of remedies the principal point of discussion. A thoroughly scientific treatise would, in each article, simply show what the drug does when put into a healthy man, and afterwards point out to what diseases or morbid processes such action is able to afford relief. Unfortunately our knowledge is not complete enough for this, and the clinical method has to be used to supplement the scientific plan." As a result of this plan, we are treated to the physiological actions of all the drugs that have been experimented with up to the present time. These drug experimentations have been carried on exten-

sively by the author and by European physiologists. This treatise is made up largely of the results of these observations, collected from English, French, Italian, German and Russian sources. *The* distinctive feature of each article of the materia medica treated of by Prof. Wood, is its physiological action. Alcohol, *e. g.*, has eight pages devoted to its physiological action and three pages to its therapeutical uses. The article on Quinia has eleven pages on the physiological action, and only six pages on its therapeutical uses. These minute and extended accounts of this action very naturally lead one to suppose that there must be some sort of connection between the physiological action and the therapeutical use. This connection is not always apparent, and in very many places where the former would suggest the latter, not one word appears to confirm some of the very numerous *new* therapeutical ideas which are now taught in our colleges and practiced extensively. To illustrate this point, we refer to Corrosive Sublimate. Prof. Wood's article is limited to about one page, detailing the physiological action of this drug, and he has not one single suggestion to offer on the therapeutics of it. Producing such disastrous effects on the alimentary canal as this agent does, one would naturally expect some good might be extracted from it; and *experience* shows its incomparable advantages in dysentery, but our author does not allude to it. This book contains very much that is *more* than good, very much that is *most excellent*, yet we exceedingly regret to see our author confirming the reputation that Philadelphia physicians bear, of ultra conservatism in the uses of drugs. The only blemish that his really grand work bears, is the conspicuous absence of the thousand-and-one minor therapeutical points which characterize such modern works as Ringer's, Gubler's and Arinand de Fleury's.

The article on Electricity—most excellent in itself—is supplemented, in the appendix, with several cuts, illustrating the various points of the human body upon

which to place the electrode to produce localized electrization of the muscles. We are exceedingly astonished to see the author utterly oblivious to the authorship of these illustrations: they are evidently copied, with exactitude, from "Ziemssen's *Electricität in der Medicin*, vierte, Umgearbeitete Auflage, 1872."

So complete a work as Prof. Wood's professes to be, only leaves one exceedingly desirous of the pleasure of perusing extended articles from his pen on such subjects as the elimination of drugs from the system, the differences of action between single and reiterated doses of drugs, the specialization of action upon the motor and secretory nerve centres of "Local Remedies," as our author calls them, and many other subjects of a kindred nature, suggested by his elaborate accounts of the physiological action of medicines.

A PRACTICAL TREATISE ON DISEASES OF THE EYE. By *Robert Brudenell Carter, F.R.C.S.* London: Macmillan & Co. 1875.

This is a practical book indeed; and one which can be highly recommended to both the student and the practitioner. The author has very wisely omitted all theoretical speculations which abound in many continental works on the same subject; he has preferred to travel the safe road of well-settled facts and experience. With a view to practical instruction, he has not thought it necessary "to dwell minutely upon maladies of rare occurrence," nor has he attempted "to achieve that kind of completeness which is procured by undigested compilation." Desirous of giving the reader *his* experience, he very naturally has but little reference to modes of practice of which he is unable to speak from experience.

The book is composed of fifteen chapters. The first five chapters give an ably written account of the "Anatomy and Physiology," the "Examination of the Eye," the "Ophthalmoscope and its Application," the "Principles of Ophthalmic Therapeutics," and the "Principles of Ophthalmic Surgery." The other nine chapters are de-

voted respectively to the diseases of the eyelids, conjunctiva, cornea and iris : cataract, glaucoma, disorders of the fundus oculi, injuries, squint and paralysis, and the uses and selection of spectacles.

For the first time, we think, the interesting fact has been published (page 70), that prior to Helmholtz, in 1848, Charles Babbage constructed a perfect ophthalmoscope which, unfortunately for the scientific fame of England, remained unknown. In regard to the latest improvements of the ophthalmoscope, Carter says (page 95), "one of the most convenient forms is that of Loring as modified by Dr. Noyes of New York." We have not heard of an ophthalmoscope of Noyes, and are inclined to believe that the author meant to write "of Knapp," whose ophthalmoscope is superior to all, but is not mentioned in the book before us.

Carter is a strong advocate for the use of iodide of potassium and mercury in affections of the cornea and iris ; and his remarks in regard to the choice between the two are very interesting (page 130) : "It may be said that the best rule in practice is to inquire whether the local changes in actual progress are such as to inflict irreparable injury unless speedily arrested. If they are, iodide of potassium should be given in the first instance. If the changes in progress are not of this pressing character, it may often be best to give mercury from the first." The correctness of this view may be questioned by many, but all will fully indorse the following rule (page 140) : "While we must neither overlook nor neglect to treat the systemic conditions on which affections of the eye may more or less depend, we must not place reliance upon constitutional treatment alone, to the neglect of the various local applications, by which the local malady can be conducted to a safe and speedy termination. Of the two errors, the less serious would be to neglect the constitutional treatment."

A good ophthalmic surgeon, according to the author, should have a high development of muscular sense, con-

sentaneous action of both hands, ambidexterity, steadiness, and a great deal of preliminary practice in the dissecting room. The instruments, he divides into two classes (page 151): "the essential, which are representative of inventive ingenuity, and the superfluous, which are representative of inventive awkwardness. The former class have been contrived by good mechanics; the latter by bad surgeons."

Although most operations on the eye are not exceedingly painful, he advises the use of an anæsthetic, and he gives his preference to sulphuric ether (page 180).

His abortive treatment of *styes* is described (page 196) thus: "as soon as the first stage of the coming styne is perceived, the pimple attended with a stinging sensation which the patient can at once recognize, the eyelash passing through this pimple should be extracted by means of proper forceps, and a very fine point of mitigated nitrate of silver should be immediately placed upon the mouth of the open follicle and pressed there for a few seconds."

The passage on "Blepharitis" (page 197) is one of the best in the book. But we are sorry to see the author write so discouragingly on strictures of the nasal duct (page 220): "I have come to the conclusion that the best treatment, in a great number of instances, is that which is only palliative, and that the best surgery, generally speaking, is to leave the obstruction alone." We hope none will imitate this "nihilistic" surgery.

The diseases of the conjunctiva, most practical of all practical subjects in ophthalmology, are not discussed as elaborately as their importance would deserve. Carter's treatment is based on the principles generally adopted. Only we do not rely as confidently as he (page 227) on a solution of nitrate of silver of the strength of two grains, in the treatment of the blennorrhœa neonatorum. With reference to pterygium we do not believe that (page 257) "the patient seldom derives material or lasting benefit from any operation;" nor can we sanction this advice,

if "it extends so far over the cornea as to obstruct vision, * * then the best course is to enlarge the pupil by iridectomy."

In the treatment of diseases of the cornea, blunders are so exceedingly common that every student of medicine will do well to bear in mind these golden rules (page 271): "Keratitis, whatever else it may require, invariably requires local sedatives and local rest; and when it is even threatened, the instillation of atropine, the enforcement of functional disuse and the application of a protective bandage, should be regarded as necessary measures. In the somewhat hybrid cases in which there is unmistakable conjunctivitis, with a tendency to extension of vessels upon the cornea, it is often necessary to combine the different methods of treatment which are required for the two conditions. When this is done, too much care cannot be taken to keep the adstringent away from the cornea and to limit its action to the retro-tarsal fold. These may be touched with a stick of diluted nitrate of silver or of lapis divinus; but the application must be carefully neutralized or removed before the lids are suffered to return to their natural position."

In iritis, whether syphilitic or not, the author gives mercury on the following principle (page 314): "I accept resistance to atropine as the one sufficient proof that mercury is needed." "Nor can I believe that the rapidly beneficial action of mercury affords, in itself, any conclusive evidence of syphilis." "I have seen iritis, which I had every reason to think syphilitic, yield readily to atropine alone, and have seen iritis, which I had every reason to think non-syphilitic, resist atropine, and yield only to mercury."

Since Von Graefe introduced his "modified linear extraction" the operation for cataract has been the favorite topic among ophthalmic surgeons, and Carter also gives the subject a very elaborate discussion. He advocates discission for the cataract of infants, discission, combined with suction, for all cataracts in persons under thirty

years, and Graefe's operation for cataracts of older patients. Very interesting are the author's remarks in reference to the "latest improvements" (?) by Kuchler, Liebreich and others.

Concerning the nature and treatment of the glaucomatous diseases, Carter points, with particular stress, to the intimate relation between glaucoma and morbid changes in the trifacial nerve. His advice to use atropine after the operations for glaucoma (page 422) sounds rather singular in the face of the well-observed fact that the use of atropine has in some eyes lighted up the glaucomatous process.

In regard to the diagnostic value of the "choked disc" as an evidence of some intra-cranial lesion, Carter is quite right in saying (p. 426), "I myself can only say that it is frequently associated with such lesion." And to substantiate his reserved opinion he relates the case of a little boy who had choked discs of the most typical character, and several ophthalmologists who saw him had no doubt that he was the subject of some form of brain disease; he died of pleurisy and advanced kidney disease, "and no trace of mischief in his brain could be discovered by the most careful examination," and at the same time a woman whose eyes presented the typical changes associated with albuminuria died, with healthy kidneys, of a tumor in the cerebellum.

His experience with strychnia for atrophy of the optic nerve is not very encouraging (page 436); and he is not able to say in which cases it may act beneficially and in which it will not, unless it has been tried for a few weeks. Such is our experience also; but when we use strychnia we would never dare to allow any member of the patient's family to make the subcutaneous injections, as does Carter.

With most English surgeons, so he employs Critchett's subconjunctival operation for squint, and he pronounces this method superior to that of Von Graefe "in every respect" (p. 507). This is his personal opinion which

we do not share ; but we fully agree with him in saying (p. 505) : "The only method of perfectly curing squint, even when it is of a moderate degree, is to divide the correction as nearly as may be possible, equally between the two eyes, which really, though not apparently, participate equally in the deviation."

The discussion of "the use and selection of spectacles" is scientific, plain, and exceedingly practical, especially his remarks on the treatment of presbyopia and myopia. "I never recommend the use of weak common spectacles which leave the (presbyopic) patient struggling, as it were, on the very brink of his infirmity and compel him always to exert his ocular muscles to the full measure of their powers," (p. 543). And as to myopic persons, "the limited range of their vision is alone an evil of no small magnitude. Young persons who are short-sighted, and who are suffered to grow up without spectacles, that is to say, with no distinct vision of anything which is more than six inches or twelve inches from their noses, lose an amount of unconscious education which no teaching can supply," (p. 558).

The text is fairly illustrated with diagrams, which, we are free to say, are far more useful than the four engravings which are of very inferior workmanship. With its slight blemishes, the book is yet a valuable contribution to the library, an instructive guide to the learner, and an entertaining companion for the learned.

INSECTIVOROUS PLANTS. By *Charles Darwin, A.M., F.R.S., etc.* With Illustrations. Pp. 462. 8vo. New York: D. Appleton & Co. 1875.

This is the only book in our language treating of plants that catch, destroy, digest and assimilate insects. Naught but commendatory words can be spoken of it. The author's name is sufficient guaranty of its intrinsic merit and eminently scientific character. The detailing of observed facts in the history of these plants, is the characteristic of the work. Those particularly interested

in the study of botany or comparative physiology will find this volume of great value.

A COURSE OF LECTURES ON PHYSIOLOGY ; as delivered by *Professor Kuss*, at the Medical School at Strasbourg. Translated from the Second and Revised Edition by *Robert Armary, M.D.*, formerly Professor of Physiology at the Medical School of Maine, etc. One hundred and fifty wood cuts ; 8vo. ; pp., 531. Boston : James Campbell.

So many works on physiology have appeared within the past seven years, that it may be invidious to make special mention of any new one, like the above ; but, in all candor, any one reading Prof. Küss' lectures must acknowledge that he has a very happy method of presenting the science that he attempts to teach, and that he has kept his book fully up with the latest developments of this subject. As proof of the foregoing remark, the reader is referred, especially, to that part of the subject relative to the functions of the nervous system, in all of the physiological phenomena of the human body. The book is devoid of the exceedingly awkward arrangement of the text of Prof. Hughes Bennett's volume on Physiology ; it is not so cumbersome as Flint's late work ; and it is superior to Kirke's late work on this subject, in that it presents more details on the subject of alimentation. It is a book that can be heartily recommended to the student and practitioner. Dr. Armary may be congratulated on his selection of such an excellent treatise for translation.

OUTLINES OF PRACTICAL HISTOLOGY ; being the Notes of the Histological Section of the Class of Practical Physiology, held in the University of Edinburgh. By *William Rutherford, M.D., F.R.S.E.*, Professor of the Institutes of Medicine in the University of Edinburgh, Examiner in Physiology in the University of London.

A prominent divine, not far from Chicago, lately received the degree of LL.D., from an Eastern University, in addition to the burden of titles which he carried aforetime. In his letter acknowledging the honor, he

wrote: "I seem to myself like an ancient lamp—pretty much all handle." So diminutive is Dr. Rutherford's book, and so ponderous the title, that one is almost warranted in saying, that it is "pretty much all handle." But it ought to be a very useful book after all. It is simply intended as a hand-book of elementary histology, "introductory to an advanced study of the subject;" but the student, and generally the physician, who "works out" the problems which Dr. Rutherford so laconically puts before him, will know a vast sight more of histology and microscopy than he did at the beginning. We know of no better manual for the student who has but little time to spend in practical laboratory work, and desires to use that little to the best advantage.

I. N. D.

MINOR SURGERY AND BANDAGING. By *Christopher Heath*, F.R.C.S. Philadelphia: Lindsay & Blakiston.

This useful little manual, addressed to the wants of the student and young practitioner, has passed to the fifth edition. In the work referred to, Mr. Heath's primary object has been to offer to the house surgeon some serviceable hints on the management of the many accidents and emergencies daily coming under his care. The author has been particularly happy in condensing much useful matter into small compass, and we take pleasure in recommending the work to the house surgeons of hospitals, to students, and those who desire to acquire a knowledge of the little things in surgery—details, upon which, so often, success depends.

J. E. O.

Medical News and Items.

LIBRARY OPENING.—After an unavoidable delay, the library of the Chicago Medical Press Association was formally inaugurated on the evening of the 30th ult.

A special invitation had been sent by the librarian to each member of the Association, and a general invitation had been extended to the profession at large ; in response to which, some sixty representative members of the profession met in the library rooms, at 263 Wabash Avenue.

An address of welcome to the new library was given by the President of the Association, Dr. R. C. Hamill. The librarian was next called upon, and briefly stated the object of the meeting. The feature of the evening which had been specially announced, was a salutatory by Dr. Jas. Nevins Hyde, who then delivered a humorous speech in the Latin language. Notwithstanding there were many who regretted that their "Stoddard" or "Harkness" had been allowed to grow dusty and rusty, yet the effect of the speech was most happy, and was the signal for a social interchange of thought and sentiment which was not lost sight of.

Speeches were made and remarks offered upon invitation, by Drs. N. S. Davis, J. P. Ross, H. A. Johnson, W. T. Byford, A. R. Jackson, J. H. Etheridge, J. Bartlett, N. Bridge, A. Fisher, and by the "secular editor," Mr. Cooke, of Keen, Cooke & Co. The report of the treasurer was also called for and read by Dr. J. E. Owens.

OUR COUNTY HOSPITAL FOR THE INSANE is a particularly interesting object for study to every man who desires to know how the insane ought *not* to be cared for. The mismanagement of the insane at the County Asylum has repeatedly been commented upon by the secular press, though without avail. In November, the

Chicago Society of Physicians and Surgeons appointed a committee to investigate into this matter. And at the last meeting of this society, held on January 24, this committee was ready to report on the result of their labor. The lengthy report was listened to by some sixty physicians with the greatest attention, for it contains a great many interesting facts, and is filled with observations which well serve to convince everybody of the necessity of an humane society.

It will enlighten our readers to learn the *modus operandi* by which the charitable institutions of Cook County are managed, and therefore the following items, clipped from the report of the medical experts, may be interesting :

“Several years ago, when preparations were being made for the erection of the first or northern portion of the present building for the insane, certain competent medical men were consulted as to the choice of a site, and the present one was strongly disapproved of and another selected. But, *in spite of these recommendations, the asylum was placed where it now is.*

The location is one of the dreariest, flattest, most exposed in the country, and on many accounts unsuited for its purpose.

The asylum is under the control of the Board of County Commissioners, and they are finally responsible for its condition and management. Upon these commissioners devolves the duty of appointing the officers of the hospital, and among them the physicians.

Besides the physicians, there is a warden, who, in accordance with the rules for the government of the asylum, drawn up by the commissioners, is the superior officer. The particular rule in question reads as follows :

RULE 5. Every other officer or agent for the county at the insane asylum or poor-house must hold himself subordinate to the warden, as the warden will be held accountable for the proper management of the institution.

The physician is elected yearly by the commissioners, and this year for the first time, as far as we are informed, has an assistant physician been elected.

There is no regular apothecary, as at all State Asylums.

One of these physicians is known to one member of the committee to be an excellent young man who has attended one course of lectures in one of the colleges in this city, and who went to the asylum some time since, hoping to make his sojourn profitable in the way of study. He has never completed his ordinary studies, and has never, until since his residence of a year or so at that hospital, had any experience of any kind in the treatment of disease, worthy of the name. He is in no sense qualified to assume the position of physician to such an institution, and he does not pretend to be so qualified, and yet he has been recently elected on a salary as assistant physician to the asylum.

As regards the superintendent, he is also a young man, who, from the best we can learn, cannot have had an extensive experience in the treatment even of common forms of disease, and certainly not in the management of the insane. The committee have had some reason to doubt whether he is even a graduate in medicine.

They know that he has placed himself on record in this city as a graduate of the Bellevue Hospital Medical College of New York City, and that he has so represented himself to more than one member of the profession in this city. Yet on inquiring of the secretary of Bellevue Hospital Medical College, the committee received the answer that no such name appeared on the books either as a student or graduate of that college.

We have no fear of being successfully contradicted when we say that the supply of food at our county asylum is neither so good as the insane require, nor as the cost of maintaining our insane should afford them. At the time of a former visit of the chairman of the committee on his own responsibility, he found the beds,

especially in the lower wards, very coarse and uncomfortable, and destitute of pillows. At the time of the visit of the committee, the same kind of beds, consisting of ticks filled with coarse straw, were in use, but they were supplied with straw pillows, stuffed with similar material with the ticks themselves.

We do not consider them such as should be provided for the insane, certainly far below what are provided in our State hospitals, and for the same or less money. Neither did the clothing of the patients, at least of many of them, appear to the committee to be as good as furnished at Elgin and Jacksonville. It certainly did not seem to be as good as it should be for the money that these patients cost the county.

We have intimated that the accommodations should be better than they are, considering their cost. The asylum costs the county annually about \$70,000 in round numbers. This includes simply the total sum expended, in the case of the insane, in supplying food, clothing, medicines, salaries of officers, attendants, etc. We have placed the average number of insane persons at the asylum at 300. But the truth is, 275 would be nearer the average for the past year. This would make the cost of maintaining patients, exclusive of the use of the building, which does not enter into the calculation, about \$4.50 to \$5 per week. This sum furnishes thousands of boarders in this city with better accommodations, and at the hands of private parties; who expect a margin, as profit on this price.

In the State hospitals of Massachusetts, with the exception of that of Tewksbury, the expense of State patients is \$3.50 per week. None of these are specially designed for the pauper insane, but are rather of the character of our own State institutions, and the provision, except in the matter of buildings, is much above that for our insane paupers at Jefferson; and, curiously enough, the cost is less. The pauper insane of Massachusetts are comparatively well cared for at Tewksbury,

at a cost of \$2 per week. This institution, is under the most competent medical management.

Much the same statement is to be made concerning the asylum at Cranston, in Rhode Island.

In nearly all these cases the insane are cared for at as little or much less expense, and with better fare, than at Jefferson. We call your especial attention to this fact.

We have also compared the cost of maintaining our insane hospital for paupers with two Western institutions, viz., the Northern hospital at Oshkosh, Wis., and the Northern hospital at Elgin, both of which are State institutions. At Oshkosh, the patients are furnished in a very superior manner, with spring beds and hair mattresses on good large bedsteads, and other needful furniture, with excellent food, and first-class medical service—in all these respects better than at our own asylum, and for \$4.50 a week per patient.”

And so it goes on. Bad location, incompetent physicians, poor food, poor beds and clothing, and all this for \$70,000 per annum. *Sapienti sat!*

THE IOWA CENTRAL MEDICAL ASSOCIATION held its third annual meeting Jan. 11, 1876, at which the following officers were elected, viz. :

President—Dr. Enoch Lewis, of Albion.

Vice-President—Dr. W. A. Chapman, of Marshalltown.

Secretary and Treasurer—Dr. Charles Reiterman, of Le Grand.

The annual address by Dr. O. F. Hixson, the retiring president, on the general subject of medicine and the profession, was a very able one. The next quarterly meeting will be held on the 11th of April.

EVENING LECTURES.—Arrangements have been completed for a course of lectures to be given to the members

of the dental profession, on Thursdays and Saturdays from 7 to 9 P. M. These lectures embrace the subjects of Physiology, Histology, Pathology and Chemistry ; they began on the first Thursday in January, to continue for thirteen weeks. The inaugural lecture on "The Present Tendency of Science," was delivered by Dr. I. N. Danforth, on January 3rd.

THE ADVERTISEMENTS of the *N. Y. Medical Journal*, published by its exchanges, contain the encomiums of three British and three American periodicals. Of the latter, one is taken from the *Chicago Medical Times*—the small organ of the still smaller, so-called, Eclectic school of medicine in this city. It is now in order for the *N. Y. Medical Journal* to publish its opinion of the *Chicago Medical Times*. This advertisement of the two periodicals is gratuitous.

DR. CALVIN ELLIS, of Boston, has an article in a late number of the *Boston Medical Journal*, the object of which is, to impress on the professional mind that there is no such thing as *general* softening of the brain, clinically considered. He quotes from half a dozen or more authors whose phraseology implies that there is such a disorder as general softening, although no one positively says so. It is presumed no one would say so, yet with them, the profession in general are in the habit of talking and writing as though all cases of cerebral softening were not of a part, and usually a small part, instead of the whole of the brain mass.

There is little doubt that many of our beliefs, right and wrong, are the offspring of the phraseology we habitually—automatically—use, and Dr. Ellis has done a good service in jogging our memories on the subject of one abuse in this direction.

PROF. DEPAUL, of Paris, has lately returned from Brazil, whither he went at the instance of the Emperor to attend his daughter, the Countess d'Eu, in her recent confinement. It seems the Brazilian doctors are no more perfect than those of America. The reception and treatment of Prof. D. was very cold and uncordial until after the successful termination of the accouchement, which had been difficult, when all classes, the profession included, fêted him enthusiastically.

THE PROFESSION in Canada are in trouble about the laws regulating the practice of medicine. While the regular profession are discussing what sort of a bill they shall ask the legislature to enact, to better their condition, and are holding meetings for this purpose, behold a bill "which no person had ever seen or even heard about" is introduced into the House. The *Canada Journal* is suspicious of the bill, and we think with reason, for the document fills twelve brevier pages of the *Journal*, and was drawn by a lawyer. We fear if this bill passes, the profession in Canada will have no time for scientific pursuits.

THE IMPERIAL BOARD OF HEALTH IN GERMANY.—A sum amounting to about \$4,000 has been appropriated to the establishment of a Supreme Board of Health for the German empire, the principal object of which will be to collect reliable statistics in sanitary matters, although it is reported that the board is also to be a sort of sanitary court of appeals, to which the district administrative boards or provincial governments will have to refer for sanitary advice and decision.

LEECHES PRESERVED IN SALICYLIC ACID.—The *France Médicale* contains the following: In a saturated solution of salicylic acid the leeches die very quickly, but in a

solution containing just a little acid, they keep better than in common water. In a mixture of 100 grammes of water with four drops of a watery solution of salicylic acid (1.300), leeches can be kept for use during many months, without the water acquiring an offensive odor.

AN AGREEABLE CATHARTIC.—Dr. P. Reich finds a “tinctura rhamni frangulæ” (buckthorn) an agreeable form of administration of the cathartic, and one that is particularly appropriate to cases in which it has to be given for a prolonged period. The usual dose of his tincture is two teaspoonsful at night, but in some cases one suffices, causing a pultaceous stool the following morning.—*Philad. Med. Times*.

THE REPORT of the Rudolph Hospital at Vienna, for the year 1874, shows that during that year, 5,575 patients were received and 479 were transferred from 1873; making a total of 6,254 patients. Discharged cured, 3,375; improved, 1,298; incurable, 346; died, 653; remaining at the end of the year, 582.

Embarras des richesses! During the past two months our medical societies transacted so much important and interesting business that their reporters seem to be completely overwhelmed and unable to give us a fair record of these transactions. We make this statement lest some of our readers, not finding the usual society reports in this Journal, should believe the societies defunct.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS.

SOCIETIES.

Mondays, Feb. 7 and 21—Chicago Med. Society, regular meetings at Gault House, 8 P.M.
Mondays, Feb. 14 and 28—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P.M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P.M.—Prof. Holmes.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Merriman.
 At Central Dispensary (239 W. Van Buren St.), 2 P.M., *Gynecological*—Dr. Adolphus.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Johnson.

LECTURES. *Every Monday.* At Rush College (18th and Arnold Sts.), 8½ to 12½ o'clock—
 Profs. Gunn, Miller, Freer and Powell; 4 to 6—Profs. Lyman and Etheridge. At Chicago
 College, 8½ to 12½—Profs. Jewell, Quine, Merriman, Hyde and Bond; 3 to 6—Profs. Davis
 and Nelson, Andrews and Quine, and Roler. At Woman's Hospital College, 9 to 12—Profs.
 Thompson, Bogue and Blake; 3 to 6—Profs. Paoli, Stevenson and MacDonald.

TUESDAYS.

SOCIETIES.

Tuesday, Feb. 8—Academy of Sciences, regular meeting, 8 P.M. (263 Wabash Av.).

CLINICS. *Every Tuesday.*

At County Hospital, 2 P.M., *Medical*—Dr. Bevan; 3 P.M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Hollister.

LECTURES. *Every Tuesday.*

At Rush College, 8½ to 12½—Profs. Gunn, Miller, Allen and Parkes; 4—Prof. Lyman. At
 Chicago College, 8½ to 12½—Profs. Jewell, Isham, Merriman and Bond; 3 to 6—Profs.
 Davis and Nelson, Andrews and Hatfield, and Byford. At Woman's Hosp. Coll., 9 to
 12—Profs. Marguerat, Bartlett and Fitch; 3 to 6, Profs. Delafontaine, Curtis and Mac-
 Donald.

WEDNESDAYS.

CLINICS. *Every Wednesday.*

At County Hospital, 2 P.M., *Ophthalmological*—Dr. Montgomery; 3 P.M., *Gynecological*
 At Chicago College, 2 P.M., *Gynecological*—Prof. Nelson.
 At Mercy Hospital, 2 P.M., *Surgical*—Prof. Andrews.

LECTURES. *Every Wednesday.*

At Rush College, 8½ to 12½—Profs. Hay, Freer, Allen and Parkes; 4 to 6—Profs. Lyman
 and Etheridge. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Merriman and
 Bond; 3 to 6—Profs. Davis and Curtis, Jones and Quine, and Roler. At Woman's Hosp.
 Coll., 9 to 12—Profs. Dyas, Earle and Thompson; 3 to 5—Profs. Paoli and Stevenson.

THURSDAYS.

CLINICS. *Every Thursday.*

At Eye and Ear Infirmary, 2 P.M.—Prof. Holmes.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Merriman.
 At Central Dispensary, 2 P.M., *Gynecological*—Dr. Adolphus.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Johnson.

LECTURES. *Every Thursday.*

At Rush College, 8½ to 12½—Profs. Gunn, Miller, Allen and Parkes; 4 to 6—Profs. Ross
 and Lyman. At Chicago College, 8½ to 12½—Profs. Hollister, Merriman and Bond;
 3 to 6—Profs. Davis and Nelson, Andrews and Hatfield, and Byford. At Woman's
 Hosp. Coll., 9 to 12—Profs. Marguerat, Bogue and Fitch; 3 to 6—Profs. Delafontaine,
 Curtis and MacDonald.

FRIDAYS.

SOCIETIES.

Friday, Feb. 11—State Microscopical Society of Illinois, regular meeting at the Academy
 of Sciences, 8 P.M.

CLINICS. *Every Friday.*

At County Hospital, 2 P.M., *Medical*—Dr. Bevan; 3 P.M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P.M., *On Dis. Eye and Ear*—Prof. Jones.

LECTURES. *Every Friday.*

At Rush College, 8½ to 12½—Profs. Gunn, Freer, Allen and Parkes; 4 to 6—Profs. Holmes
 and Etheridge. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Merriman and
 Bond; 3 to 6—Profs. Jones and Curtis, Andrews and Quine, and Roler. At Woman's
 Hosp. Coll., 9 to 12—Profs. Hotz, Bartlett and Blake; 3 to 5—Profs. Paoli and Stevenson.

SATURDAYS.

CLINICS. *Every Saturday.*

At Rush College, 2 P.M., *Surgical*—Prof. Gunn; 3 P.M., *Diseases of the Brain and
 Nervous System*—Dr. Hay.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Nelson; *Surgical*—Prof. Andrews;
 3 P.M., *Medical*—Prof. Davis.

LECTURES. *Every Saturday.*

At Rush College, 8½ to 12½—Profs. Hay, Miller, Freer and Parkes. At Chicago College,
 8½ to 12½—Profs. Hollister, Quine, Sherman and Hatfield; 3 to 6—Profs. Davis and
 Nelson, Andrews and Quine, and Byford. At Woman's Hosp. College, 9 to 12—Profs.
 Marguerat, Earle and Fitch; 4 to 6—Profs. Curtis and MacDonald; 3 to 5—Prof.
 Thompson.

There are six special Clinics daily at the South Side Dispensary (at Chicago College)
 for students of the Chicago College. A daily Clinic is given at Dispensary of Hospital for
 Women and Children, 1½ P.M., for students of Woman's Hospital College.



Daniel Raimond.

THE

Chicago Medical Journal

AND

EXAMINER.

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Original Communications.

EARLY MEDICAL CHICAGO.

By JAMES NEVINS HYDE, A.M., M.D., CHICAGO.

To assert to-day that the age of men and cities should be estimated, rather by the march of events than by the lapse of time, is to merely utter a truism. There are tapestries now hanging in the palaces of Venice, that have been undisturbed since the Venetian Dandolo carried the walls of Constantinople. How little of change has each succeeding half century wrought in the apartments which now display the faded furnishings of a long-departed Doge! And yet, in the purview of history, how venerable was the royal prophet of Israel in the Assyrian Court, who had exchanged the captivity of his childhood for the government of a province, and survived the rise and fall of three dynasties, when Cyrus entered the Babylonian capital by the bed of the Euphrates!

By the transit of time merely, Chicago may be counted as yet young, but she is really old in the measure of her experience. Dismissing for the moment the charge which is generally, and possibly justly, brought against her

citizens, that they are prone to exaggerate the rapidity of her growth and the extent of her development, these are yet facts which challenge investigation. Here is a city of nearly half a million of inhabitants, where fifty years ago was a morass, untenanted and almost untenable. The great concentration of human energies requisite to effect such a rapid metamorphosis, is difficult of realization. No better illustration of the rapidity of succession of events within this limited period can be found, than in the fact that an experience of the early days of Chicago has come to be regarded with much of the veneration that attaches to a remote antiquity. And yet the child who first saw the light in the infancy of the city, should to-day be only in the meridian of life.

I purpose to present a brief sketch of the pioneers in this field—the predecessors of the large body of medical men who are now engaged in the practice of their profession in this great metropolis. The paucity and imperfection of these details are largely due to the difficulty inseparable from their collection.

The early history of Chicago, and the first records of its medical men and practice, are intimately associated with its old fort. Even as early as the treaty of Greenville, O., which is dated August 3, 1795, there is some reference to a fort, built at the junction of the lake and the river.* This was, however, a small stockade erected for the protection of French traders, at the point where the north and south branches of the river unite, some remains of which were still to be seen in the year 1818.

Fort Chicago† was built by the United States Govern-

* Sketches of the Country on the Northern Route, from Belleville, Ill., to the city of New York, and back by the Ohio Valley, with a sketch of the Crystal Palace. Jno. Reynolds. Belleville. 1854.

† In the papers of Mr. J. H. Kinzie, and according to the statement of Mrs. Gen. Whistler, lately in Chicago, it appears that this fort was called by the name of Gen. Dearborn as well as its successor. Mr. Kinzie's papers were destroyed in the Great Fire, which consumed the library of the Chicago Historical Society.

ment in 1804, and but little is known of it except that it was provided with a subterranean passage and sally-port, extending from the parade ground to the river.* The Indian name, which it bequeathed to the city, is variously interpreted as referring to the wild onion, or the pole-cat; but the natives themselves asserted that it was the title of an Indian chief who had been drowned in the river. In the manuscript letter of M. de Ligney at Green Bay to M. de Siette among the Illinois, dated in 1726, the name is spelled, "Chicagoux."†

The narrative of the massacre at Fort Chicago by the Indians, in 1812, has been detailed in such fullness, that it cannot find a place here. It is now a matter of historical record. The account given by Mrs. Helm, however, in the very readable volume of Mrs. Kinzie,‡ is interesting in this connection, as it relates in part to the surgeon of the fort—Dr. Isaac V. Van Voorhees.§

It appears from Mrs. Helm's narrative, that Dr. Van Voorhees came up to her during the very hottest part of the engagement. He was severely wounded, having received a ball in the leg, and his horse had also been shot under him. Every muscle of his face was quivering with agony. Some conversation ensued between the two, when, writes Mrs. Helm, "a young Indian raised his tomahawk at me. By springing aside, I avoided the blow which

* The fort was then occupied by fifty men and armed with three pieces of artillery, transported thither on the U. S. Schooner Tracy, Dorr, master. This vessel did not cross the bar and enter the river, but anchored half a mile from the shore, and discharged its freight by boats, attracting the presence of some 2,000 Indians, who came to view the "big canoe with wings." (See Chicago and its Suburbs, by Everett Chamberlin. Chicago. 1874. Also, Chicago Antiquities, No. 2, by H. H. Hurlbut, Esq. Chicago. 1875.)

† The name is also spelled by various authorities, Chikajo, Checagua, and Chekagua. (See Frauquelin's map, 1684.)

‡ "Wau-Bun;" or the Early Day in the Northwest. By Mrs. Jno. H. Kinzie. New York and Chicago. 1857.

§ His name is also given Voorhees and Voorhes. See "My Own Times." By Jno. Reynolds, Ill. 1855. Also, "Annals of the West." J. R. Albach. Pittsburgh. 1857.

was intended for my skull, but which alighted on my shoulder. I seized him around the neck, and while exerting my utmost strength to get possession of his scalping-knife, which hung from a scabbard over his breast, I was dragged from his grasp by another and an older Indian. The latter bore me, struggling and resisting, to the lake. Notwithstanding the rapidity with which I was hurried along, I recognized, as I passed them, the lifeless remains of the unfortunate surgeon. Some murderous tomahawk had stretched him upon the very spot where I had last seen him."

I have purposely omitted the conversation which is reported to have occurred between the two, and which is exactly repeated in almost every account of the massacre, since it reflects but little credit upon the wounded officer. It represents him as in an agony of terror, and his companion as reproaching him for his pusillanimity. But there are several circumstances which the professional reader can not fail to consider, before consigning the name and reputation of Dr. Van Voorhees to historical obloquy. Without questioning the veracity of the writer, it is evident that the incidents narrated rest upon the recollection of a single individual, and that individual a woman surrounded by circumstances of extreme peril and excitement. She appears as the heroine of the story, and on that account due allowance should be made for partiality of statement. Dr. Van Voorhees, moreover, was evidently suffering from his wounds. We only learn of that inflicted upon the leg. What other injuries he may have sustained—whether of the brain, chest or abdomen—we can not know. Whether, indeed, he was wounded even unto death, and sank lifeless to the ground soon after, rather as the result of this than from the blow of a tomahawk, can not be determined. Jurists, as well as medical men, learn to accept with great reserve statements made either *in articulo mortis* or in the immediate peril of violent death. Too many surgeons have exhibited not only a consummate skill, but a splendid

courage upon the field of battle, for their professional brethren to doubt the compatibility of these virtues. They will only remember, therefore, of their martyred representative in the battle of Chicago, that he was sorely wounded in the discharge of his professional duties, and that he died the death of a soldier.*

After the encounter, the survivors must have sadly missed the attentions of the dead surgeon. Mr. Kinzie soon applied to an old Indian chief, who was reputed to possess some skill in these matters, to extract a ball from the arm of Mrs. Heald—the wife of the captain who had commanded the fort. “No, father,” was the response, “I can not do it, it makes me sick here”—said the Indian, pointing to his heart. Mr. Kinzie then performed the operation himself with his penknife. The accoutrements of the surgical department had meantime fallen into possession of the Indians. Later, we learn that a French trader, a M. du Pin, was in the habit of supplying medicines as well as medical advice to those in need of either; and, on one occasion, we hear of his prescribing for the infant of a Mrs. Lee, who was one of the captives. It appears that his efforts were not unattended with success.

In the year 1816, the fort was rebuilt by the Government, under the supervision of Captain Hezekiah Bradley, who is reported to have been so zealous in the discharge of his duties, that he enlisted officers as well as soldiers in the prosecution of the work, and even had wooden pins fashioned, in order to fasten together the timbers of the buildings, and thus economize his supply of spikes and nails. At this time, also, the entire tract of land was ceded to the United States by the Pottawatomies. With them, according to Judge Caton,† Chicago had

* In the official account of the engagement, the loss of Dr. Van Voorhis (for so his name is given by Captain Heald) is deeply deplored, and nothing is said that reflects in the slightest degree upon his character as an officer and surgeon.

† “The last of the Illinois, and a Sketch of the Pottawatomies.” By John Dean Caton, LL.D. Chicago. 1870.

ever been a favorite resort. Here, they had chosen to hold their great councils, and here, they concluded both the first and last treaty with our Government.

In the year 1818, the place was visited by Mr. Gurdon Saltonstall Hubbard, who is now a resident of Chicago and the oldest representative of its early days. At that time, besides the fort, there were but two residences standing, one that of Mr. John Kinzie, the other of Antoine Houquette. It may be mentioned here that Mr. Hubbard, at a later period, (1834), erected the first brick building ever reared in Chicago.*

Two years later, we find recorded the name of another medical gentleman, Dr. Alexander Wolcott, of Connecticut. He was born on the 14th day of February, 1790, at Windsor, Ct., and was the son of Alexander Wolcott, Sr., and Frances Burbank. His father was, with the writer of these pages, a descendant of William Hyde, of Hartford, Ct. (1636), and was graduated at Yale College, becoming afterward a distinguished lawyer and Justice of the Peace in Windsor. He subsequently removed to Middletown, Ct., where he was appointed collector of the customs and member of the constitutional convention of 1818. President Madison subsequently nominated him as a Justice of the Supreme Court of the United States, but the federalists in the Senate succeeded in preventing the appointment.† The distinguished Governor, Henry Wolcott, was his near relative.‡

Dr. Wolcott was graduated at Yale College in 1809,§ and must have received his degree in medicine elsewhere, as the medical department of that University was not established until 1814. He came to Chicago in 1820 as an Indian agent of the Government, succeeding to the

* This building stood on the corner of South Water and La Salle streets, and was for some time known as "Hubbard's Folly."

† Genealogy of the Hyde Family, by Chancellor Reuben Hyde Walworth, LL.D., Albany, N. Y. 1864. Vol. 2, p. 1121.

‡ History of Connecticut, by G. H. Hollister. New Haven. 1855.

§ Catalogus Collegii Yalensis in Novo-Portu in Republica Connecticutensi. MDCCCLXV.

position of Mr. Charles Jewett, and was soon after married to Miss Ellen Marion Kinzie, then sixteen years old, by John Hamlin, a Justice of the Peace, summoned to the village in order to perform the ceremony. The young lady was the daughter of John H. Kinzie, Esq., and was born in Chicago in the month of December, 1804, being indubitably the first child of white parents born on the soil. Dr. Wolcott died in 1830, and his widow was united in a second marriage to the Hon. Geo. C. Bates, of Salt Lake City. Through the kindness of Henry H. Hurlbut, Esq., of Chicago, I am enabled to present this *fac simile* of the lady's autograph:

Ellen M Bates

By a stupid act of our local legislators the name of Wolcott street, which served as an historical landmark of this early resident, was changed to North State street.

I am informed by the Hon. John Wentworth of this city, in a recent letter, that Dr. Wolcott during his lifetime served in the capacity of an army surgeon. It seems, however, tolerably clear that he performed the duties first named, residing as he did outside of the fort; though it may well be believed that there must have been a demand for his professional services such as he could not but gratify, and indeed his selection for such a post must have resulted in part from his attainments as a physician.

The outside world must have known but little of the infant settlement in 1823. For in a *Gazetteer** published at that date, the information respecting Chicago is extracted from an account given in "Schoolcraft's Travels." It appears that some twelve or fifteen houses had been erected, which were occupied by some sixty or seventy inhabitants. "The country around is the most fertile and beautiful that can be imagined. It consists

* *Gazetteer of the States of Illinois and Mississippi*, by Lewis C. Beck. 1823.

of an intermixture of woods and prairies, diversified with gentle slopes sometimes attaining the elevation of hills (!), irrigated with a number of clear streams and rivers, which throw their waters partly into Lake Michigan and partly into the Mississippi river. It is already the seat of several flourishing plantations."

During the year 1822, there were eighty-seven men in the garrison and one death occurred; during the ensuing year, there were ninety-five men, and of these, three died. The fort was then abandoned, but occupied again in 1828, one year after the passage of a bill in the legislature for the construction of the Illinois and Michigan Canal. This was the genial warmth that hastened the germination of the seed destined to produce so worthy a harvest. Game was abundant, the land was fertile, and corn easily grown. Occasionally the mail was brought from Peoria on horseback. But Chicago was yet unborn.

It must be admitted that the infant first opened its eyes upon Lake Michigan, in an uneventful period of history. No great war was in progress, and commonplace men were in power. William IV., plainest and homeliest of royal blood, was seated on the British throne, and co-operating with the whig party in reforming parliamentary representation, and in restricting the operation of the oppressive corn laws. During the Revolutionary War he had figured in the dance, at No. 1 Broadway, with the loyalist belles of New York City. The triumph of the constitutional party in France had made a king of Louis Philippe—a man as incapable of exciting the affections of others, as he was destitute of magnanimity himself. He still preserved the recollection of his wandering tour in America. General La Fayette, now seventy years old, had returned to France, rewarded with the friendship of Washington and the gratitude of the United States. Otho I. had just been bolstered up on the throne of Greece. Poland had sunk down disarmed—the helpless victim of the iron sceptre of the Muscovite. Then, as

now, a Don Carlos at the head of a faction of Carlists, was agitating Spain. Perhaps the only man in Europe, who was making himself felt as a power, was Daniel O'Connell, who was threatening the repeal of the National Union in Parliament at the head of a legion of Irishmen.

It seemed as though the succession of splendid events, that had culminated at Waterloo, and even lighted up by reflection the gloom of St. Helena, had been followed by a general reaction, in which all the great States participated.

In our own country also, the hero of the battle of New Orleans had laid aside his sword in order to discharge the more peaceful duties of the chief magistracy. The population of the country, according to its then recently taken census, amounted to twelve and one-half millions, a figure three times greater than that obtained by the first colonial census, and yet but one-fourth of that which should represent the people of the United States in 1870. It was the semi-centennial decade of our first hundred years of national life. Already the sentiments and passions, that were later to culminate in civil war, had been expressed in the halls of Congress. The great speeches of Webster and Hayne had been delivered. South Carolina had commenced to mutter the maxims of her political heresy, which precipitated soon after the rupture between the President and the Vice-President, Mr. John C. Calhoun.

With even a cursory glance at the condition of the medical profession in the United States, we discover that great advance had been made since the first resident physician in the country, Dr. Walter Russell, came from England to the Colony of Virginia in 1608. Drs. John Bard and Peter Middleton had, in 1750, been first to inject and dissect the body of a criminal for anatomical purposes; and in fifteen years thereafter the Medical Department of the University of Pennsylvania had been organized—the pioneer of all the medical colleges in the

country. The profession venerated the name of the heroic Dr. Warren, who fell at the battle of Bunker Hill, as well as that of Dr. Benjamin Rush, who was one of the signers of the Declaration of Independence. Dr. Physick had invented the tonsillotome which is now in general use, and established his reputation as one of the most eminent surgeons in the United States. Dr. McDowell, in 1809, had performed ovariectomy, and lithotomized the poor lad who subsequently became President, James K. Polk. Operations had been recorded for ligation of the carotid, subclavian, brachial, femoral, internal, external and common, iliac arteries; amputations had been accomplished at the hip and shoulder joints; the radius, clavicle, head of the humerus and femur, the astragalus, and the fifth and sixth ribs had been excised; the tumor of spina bifida, the tongue, the spleen and the parotid gland had been excised; lithotripsy and staphyloraphy had been done; the hydrocephalic head had been tapped.

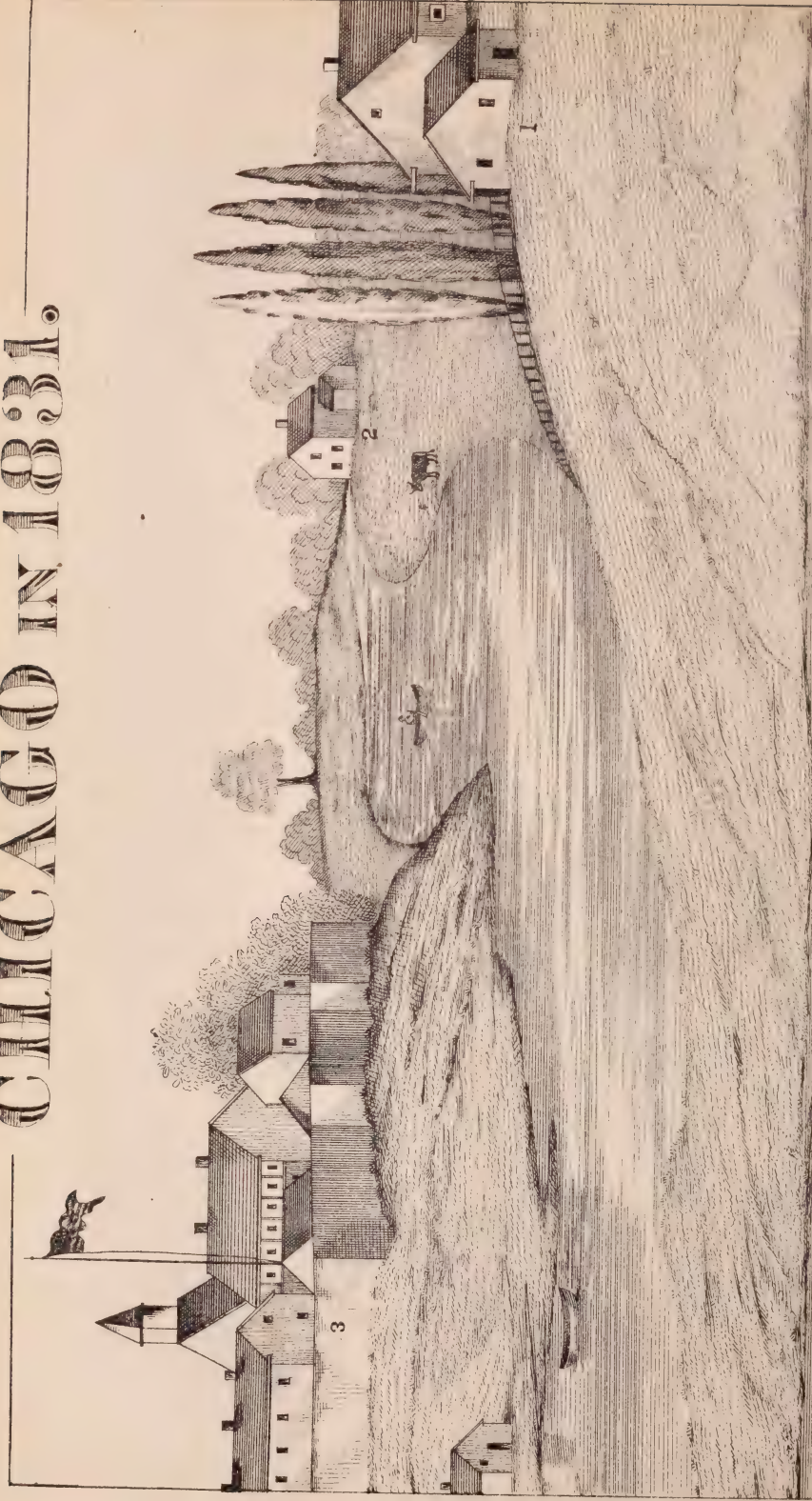
Thirty-two medical works* had been issued from the American press—some of them, translations from foreign authors; some, reprints of foreign editions; some, from the pen of native-born physicians and surgeons. Thirty medical periodicals had been established, but, at the date to which I refer, of these, but ten had survived.†

* See the Principles and Practice of Surgery, by Henry H. Smith, M.D., Phil. 1863, from which these details have been obtained. The works of American authorship referred to, are: Review of Medical Improvements in the 18th Century, by David Ramsey (1800); Martin on Goitre (1800); Barnwell's Causes of Disease in Warm Atmospheres (1802); Parrish on Ruptures (1811); Dorsey's Elements of Surgery (1813); Hosack's Surgery of the Ancients (1813); Mann's Medical History of the Campaigns of 1812-14 (1816); Anderson's System of Surgical Anatomy (1822); Gibson's Institutes and Practice of Surgery (1824); Barton's Treatment of Anchylosis by Formation of Artificial Joints (1827); Darrach's Anatomy of the Groin (1830); and Gross's Anatomy, Physiology and Diseases of Bones and Joints (1830).

† These survivors were: Transactions of the College of Physicians of Phila., 8vo, Phil. (1793-1850); North American Medical and Surgical Journal, Phila. (1826-1831); American Journal of the Medical Sciences, 8vo,



CHICAGO IN 1831.



3 FORT DEARBORN.



2 DR WOLCOTT.

1 JOHN KINZIE.

The county of Cook, in Illinois, was organized in the year 1831, and that may properly be considered the date of the commencement of the medical and general history of Chicago.* For a description of the place at that time, I am largely indebted to the work of Mrs. John H. Kinzie, to which reference has been made.

The fort was enclosed by high pickets, with bastions at the alternate angles, and large gates opening to the north and south; while here and there were small sally-ports for the accommodation of the inmates. Beyond the parade ground, which extended south of the pickets, were the company gardens, well filled with currant bushes and young fruit trees. The fort itself was stationed on the south bank of the river, near what is now its mouth, but, at this time, the river itself swept around the little promontory on which the stockade was erected, and, passing southward nearly beneath what is now the pavement of Michigan avenue, joined the lake at a point about half a mile below, where Madison street now extends. The left bank of the river was formed by a long sand-spit, extending southward from the northern shore. This was cut through by the engineers of the United States in 1833, for the purpose of improving the harbor; and thus was formed the present river-mouth. The old fort stood like a faithful sentinel at his post till 1856, when it was demolished, after having witnessed the growth of its *protégé* into the encroaching city that enforced its destruction.

Between the gardens and the river bank was a log cabin, erected in 1817. It had been the residence of Jean

Phila. (1827—1876); Boston Medical and Surgical Journal, 8vo, (1828); Transylvania Journal of Medical and Associated Science, Lexington, Ky. (1828—37); New York Medical and Physical Journal (1829—31); Maryland Medical Recorder, 8vo, Baltimore, Md. (1829—32); New York Medical Inquirer and American Lancet (1830); and the New York Medico-Chirurgical Bulletin (1831—2).

* The map of the original town, by James Thompson, surveyor for the State Canal Commissioners, is dated Aug. 4, 1830. It provided for a public levee from South Water street to the river, the plan of which was subsequently abandoned.

Baptiste Beaubien, Point au Sable, a native of San Domingo, who located here in 1796, and thus occasioned the utterance of the Indian Hibernicism that "the first white man in Chicago was a negro." The cabin had finally come into the possession of an Indian trader, named Le Mai, from whom it had been purchased by Mr. Kinzie. Further to the south was a rickety tenement, built several years before by John Dean, a post-sutler, and now used by his family as a school-house and residence. It had been so far undermined by the lake as to have partially fallen backward.

On the northern bank of the river, and directly in front of the fort, stood the residence of Mr. John Kinzie. It was a long, low building, with a piazza extending along its front, overlooking a broad, green space which stretched between it and the river. It was shaded by a row of Lombardy poplars in front, and two immense cottonwood trees in the rear; a fine and well-cultivated garden showing on one side, with dairy, stables and other out-houses adjacent.

Still further to the north, stood a small but substantial building of hewed and squared logs, known as the Agency House. On either side of its two wings were the residences of the Government employees—blacksmiths and laborers—mostly half-breed Canadians, with an occasional Yankee among them. There was but one other building on the North Side, and that was at this time vacant. It had been erected by a former resident, named Samuel Miller.

On the southern bank of the river, between the fort and the point where the river divides, there was no dwelling house. The prairie here was low and wet—in the driest weather affording a poor foot-path for the pedestrian, and often overflowed in the rise of the river water. Mrs. Kinzie states that a horseman who once made the trip had gotten his feet wet in the stirrups, and declared that he "would not give a sixpence for an acre of it." A muddy streamlet wound around from the present site of

the Tremont House, to join the river at the foot of State street.

The projection of land between the north and south branches was variously known as "The Point," "The Forks," or "Wolf Point"—the latter term having been derived from the name of an old Indian chief. Here was a canoe ferry for the accommodation of passengers. The residence of Mark Beaubien, Jr., distinguished by its additional upper story and bright blue window shutters, stood upon the Point, and was the admiration of the little community in consequence of these modern improvements. Facing down the river from the west, was a small tavern, kept by Mr. Elijah Wentworth, and near it lay several log cabins, occupied by Alexander Robinson, the half-breed Pottawatomie chief, his wife's connections, Billy Caldwell, the "Sau-ga-nash," and the wife of the latter, who was the daughter of "Nee-scot-nee-meg." Gholson Kercheval, a small trader, occupied one of these cabins, and, in close proximity, stood the school-house, a small log cabin, used occasionally as a place of public worship. Here, we learn that a reverend gentleman named Charles See did violence to the King's English on Sundays when opportunity offered. Some distance up the North Branch, was located the Clybourn residence, and an old building, erected some time before by a settler named Reuben E. Heacock, was still standing, at a point four miles distant up the South Branch. This house had some interest attaching to it, in consequence of its connection with the old Indian massacre.

At the time to which we refer, the fort was occupied by two companies of soldiers, under the command of Lieutenant Hunter, in the absence of Major Fowle and Captain Scott. Lieutenant Furman had died during the preceding year. The subordinate officers were Lieutenants Engle and Foster. The Kinzie family then occupied the Agency House, and Post-Master Bailey was quartered in their residence.

In the brief description above given are enumerated,

it is believed, all the buildings then erected, and all the residents occupying them, with the single exception of Dr. Harmon, to whom we hasten to give our attention.

Elijah Dewey Harmon was born on the 20th day of August, 1782, in the town of Bennington, Vermont. After completing his education as far as possible in that place, he resorted to Manchester, in his native State, where he pursued the study of medicine in the office and under the direction of a noted practitioner of the place, named Swift.* At the expiration of the two or three years which were employed in acquiring a knowledge of his profession, he removed to Burlington, Vt., at the early age of twenty-five years, and began to practice medicine in connection with the business of a drug store, as was customary at that time.† Here he remained until the occurrence of the war of 1812, when he hastened to offer his services as a volunteer surgeon. Dr. Harmon, during this period, had the distinguished honor of serving as a surgeon on board the flag-ship of the gallant Commodore McDonough, in the battle of Plattsburgh, on the 11th day of September, 1814. If the terrific fire to which the *Saratoga* was exposed in that engagement be remembered, we may well believe that the doctor's skill and courage must have been put to a severe test.

At the close of the war, the doctor returned to Burlington, where he continued in civil practice with a success which contributed not only to his financial prosperity, but to the establishment of his reputation. In the year 1829, however, he suffered some pecuniary losses in consequence of his speculations connected with a marble quarry, and he determined, as many of his successors

* The three medical schools of Vermont had not then been founded. Castleton Medical College was established in 1818; the Medical Department of the University of Vermont in 1822; and the Vermont Medical College in 1827.

† I am indebted for these details to his son, still a resident of Chicago, Mr. I. D. Harmon. Unfortunately, most of the family documents were destroyed in the Great Chicago Fire, and among them was the diploma of the University, which conferred upon the doctor his degree in medicine.

have done since then, to advance his fortunes in the far West. During that year, therefore, he spent several months in Jacksonville, Ill., engaged in the selection of a suitable locality in which to settle. After returning to his native State and completing his arrangements for a final removal, he left a second time, and proceeded directly to Chicago, traveling on horseback from Detroit, and arriving here in the fall of 1830. His family joined him in June of the succeeding year.

It happened that Dr. J. B. Finley, the surgeon of the garrison, was, at this time, about to leave the post, and thus Dr. Harmon came to be at once installed in his position—he and his family taking up their residence in the fort, which then was held by two companies of United States troops. Little must have occurred to disturb the monotony of his new duties, until the succeeding spring, when the country became agitated again in consequence of the Black Hawk war.

In May of the year 1832, cholera made its appearance upon the New England coast, and extended rapidly westward along the water courses of our northern frontier, one branch apparently diverging by way of the Hudson river to New York City. Five companies were at once hurried, in consequence of the exigencies of the time, from Fortress Monroe to Chicago, and traversed the entire distance of 1,800 miles in eighteen days, a transportation which was then considered unprecedented in rapidity, and which was really marvellous in view of the facilities then attainable. General Scott arrived with this detachment in a steamer,* on the eighth day of July, 1832, and, as might have been expected, cholera rapidly spread through his command, one man out of three being attacked, and many dying.

It was then wisely decided to separate the two companies in the fort from those which had newly arrived, and thus, if possible, prevent the extension of the dis-

* This vessel, the Sheldon Thompson, was the first steamer to visit Chicago, but it did not enter the harbor.

ease among the former. These two companies, accordingly, were encamped at a short distance from the stockade, and placed under the professional charge of Dr. Harmon. While due allowance is, of course, to be made for the favorable circumstances in which this isolated detachment was placed, it certainly reflects great credit upon their surgeon, that among the men affected with cholera under his charge, but two or three deaths occurred. It may be here remarked that the doctor attributed his success to the fact that he did not employ calomel in the treatment of the disease. Of the treatment employed in the fort, and its results, we shall have something to say hereafter.

Some misunderstanding seems to have occurred at this time between General Scott and Dr. Harmon, in reference to the line of conduct pursued by the latter. The general, like a great many military men since his day, desired the surgeon to devote his attention exclusively to the companies under his care, while the good-hearted doctor could not but heed the demand for his services by civilians, and others not in the military service. Certain it is that he endeared himself to the citizens of the little town by his conduct at this time, and we are not surprised to learn that after the epidemic had subsided, Gen. Scott and his command had pushed farther south, and the monotonous routine of garrison life had been endured for another year, that in the spring of 1832, Dr. Harmon, having secured the Kinzie house as a place of residence, removed to it with his family.

Before concluding, however, the narrative of Dr. Harmon's military career, it is proper to mention the fact that he performed an amputation in the fort during the winter of 1832. This is certainly the first record that we possess of any capital operation in Chicago; and it is probable that it was, in point of fact, the first surgical operation of any magnitude ever attempted in the place. A half-breed Canadian had frozen his feet, while engaged in the transportation of the mail on horseback from

Green Bay to Chicago.* The doctor, assisted by his brother, tied the unfortunate man to a chair, applied a tourniquet to each lower extremity, and with the aid of the rusty instruments which he had transported on horse-back through sun and shower from Detroit to Chicago, removed one entire foot and a large portion of the other. Needless to say those were not the days of anæsthetics, and the invectives in mingled French and English, of the mail carrier's vocabulary, soon became audible to every one in the vicinity of the stockade. It is gratifying to note that the first recorded amputation in Chicago was crowned with a most satisfactory success.

Dr. Harmon may properly be called the Father of Medicine in Chicago. For, in the removal and establishment of himself and his family in the Kinzie house, we find the first trace of the settlement of a civil practitioner in the community. His object in effecting this change was to engage in the practice of medicine—all other transactions having been made subordinate to this.

A brief glance at his surroundings at this time might prove interesting. His office and residence combined was a cabin, whose floor and walls were constructed of hewn logs—the former, of course, innocent of carpets. It contained twelve rooms, lighted by small panes of glass, and heated by wood burned in stoves brought from Detroit. His food was largely bacon, transported from the valley of the Wabash in the now traditional “prairie schooner,” with lard as a substitute for butter—and an occasional slice of venison, or a wild turkey, as an *entremets*. His medicines he had brought with him from Vermont, together with the rusty instruments of which mention has been made. But his medical library—to his honor be it said—was the chief part of his armamentarium. It consisted of over one hundred volumes, and some of those have, without doubt, been enumerated in the foot note upon another page giving the list of

* The winter of this year was unprecedentedly severe. There is abundant collateral evidence on this point.

works published in America before this date. How many of his successors have engaged in the practice of medicine, with far less provision for the refurnishing of the storehouse of professional science!

The doctor's visits must have been made largely on foot; as Beaubien is reported to have possessed the only vehicle on wheels to be found in the town,* and that judging from the description, must have greatly resembled the "one-hoss shay," so graphically delineated by another member of our profession. When he had occasion to cross the river, it was necessary to paddle himself over, in one of the dug-out canoes, which were generally tied in front of each residence, or resort to "Wolf Point," where a canoe ferry offered merely the same facilities.

Some idea may be formed of the general character of the doctor's patients, from a criticism written by Latrobe in the autumn of 1833.† He describes "a doctor or two, two or three lawyers, a land agent and five or six hotel keepers; these may be considered the stationary occupants and proprietors of the score of clap-board houses around you; then, for the birds of passage, exclusive of the Pottawatomies, you have emigrants, speculators, horse dealers and stealers; rogues of every description, white, black and red; quarter-breeds and men of no breed at all; dealers in pigs, poultry and potatoes; creditors of Indians; sharpers; peddlers; grog-sellers; Indian agents, traders and contractors to supply the Post"—certainly not a highly encouraging picture of a *clientèle*.

Medical examinations for life-insurance, which have since proved a source of remuneration to the profession, were then unknown. It would appear from an article

* It is said that the villagers, upon the arrival of this vehicle from the East, paid it distinguished honor, "turning out in procession and parading the streets."—*Chicago Antiquities*. No. 2.

† Western Portraiture and Emigrants' Guide. Daniel S. Curtis. New York. 1852.

published during the ensuing year in a literary periodical, not only that the general subject of life insurance was little understood in the West, but that the basis upon which policies were issued to the assured, was the statement of the applicant, endorsed by his family physician only.*

As for the fees given in remuneration of professional services, perhaps the less said upon the subject the better. But it is pleasant to note that a precedent had been established in the country, for the encouragement of the humble toilers on the Lake shore. Dr. McDowell had even then received fifteen hundred dollars for the performance of ovariectomy†—a reward which, considering the scarcity of money and the price of labor and food, was fully equal to the famous fee paid Sir Astley Cooper by Mr. Hyatt, and only surpassed by the munificent honorarium, given to a contemporary surgeon as recently reported in the secular press.

Mrs. Kinzie describes the doctor as she used to see him, when she and her friends made little excursions on horseback in the vicinity of their residence.‡ On one occasion he was engaged in superintending the construction of a sod fence near the lake, and planting fruit stones, with a view to a prospective garden and orchard, under the branches of the trees that arched overhead. "We usually stopped," she remarks, "for a little chat. The two favorite themes of the doctor were, horticulture and the certain future importance of Chicago. That it was destined to be a great city, was his unalterable conviction, and indeed, by this time, all forest and prairie as it was, we half began to believe it ourselves."

"The glorious dreams of good Dr. Harmon," as they were called, produced a practical result in his case. In the spring of 1833, he secured by pre-emption, one hun-

* See the *Western Monthly Magazine*, Vol. 2, 1834. Cincinnati, Ohio.

† *Lives of Eminent American Physicians and Surgeons of the 19th Century*. S. D. Gross, M.D. Philadelphia. 1861. Page 228.

‡ *Opus cit.*

dred and thirty acres of land lying next to the Lake and just south of what is now 16th street. In order to make good the title, he built a small log cabin upon this property, and resided there until the spring of 1834, when he left the State for Texas. To-day the doctor's farm is worth between five and six millions of dollars.* Had his sons possessed the same confidence in the future of Chicago as that felt by their father, they would now be enjoying the fruit of his wise providence. One of them, however, had been entrusted with a power of attorney for the sale of this property, and accordingly, contrary to the advice and counsel of its pre-emptor, it was sold for a sum which then seemed an enormous price for the land, but which was in fact a paltry consideration for the magnificent squares which are now covered by elegant metropolitan residences. It is, however, somewhat gratifying to reflect that the most valuable residence property in Chicago, was once, in fee simple, the homestead of its earliest resident physician.

Dr. Harmon died on the 3rd day of January, 1869, after having made several trips to Texas, where he not only engaged in the practice of medicine, but invested in real estate which has since greatly appreciated in value.

It will be seen from what has preceded, that he was of an adventurous disposition—an essential element in the character of all successful pioneers. A recent historiographer has said that the early settlers of the West made the name adventurer forever respectable—and he has wisely spoken. Out of their loins came a commonwealth—most of its virtues are hereditary, and its vices have been chiefly acquired.

Dr. Harmon, during his life, served not only as a Justice of the Peace, but, in conjunction with Col. R. J. Hamilton and Mr. Russell E. Heacock, officiated in the first Board of School Commissioners, organized under the law. The Doctor's strong conviction of the immense prospective value of the land known as the School Sec-

* This is the value as estimated by W. D. Kerfoot, Esq., of Chicago.

tion, led him here also to strenuously oppose its sale. In this matter, as in the disposition of his own property, his judgment was overruled by others, and but forty thousand dollars were for this reason realized from the sale of six hundred and forty acres of land, the value of which to-day is more than fifty millions of dollars.

In person, Dr. Harmon possessed a commanding figure, and his features were such as proclaimed at a glance both his parentage and his profession. There were the strong outlines of the New England face, with the beard shaven in the manner adopted by the profession in France—a face whose like is often seen in the portraits of the heroes of the Revolution. There were, besides, the evidences of broad culture, high attainments and wide experience—the traits of one, whose mental horizon is not bounded by the definitions of other men. He was also a gentleman having a generous, whole-hearted disposition. One of the streets of our city still bears his name. The profession have little need to be ashamed of their first civil representative in Chicago.

In order to a correct understanding of this narrative, it is now necessary to retrace our steps to the old fort, which we left at the time of the exodus of Dr. Harmon and his family. In response to my inquiries (for the answers to which I am greatly indebted to Assistant Surgeon John S. Billings, U. S. A., now of the Surgeon General's Office,) it is made clear that there is no record of any medical officer stationed at the fort, prior to the time of Assistant Surgeon S. G. J. DeCamp, of New Jersey. Of Dr. Van Voorhees and Dr. J. B. Finley, no information can be obtained at the War Department. Dr. DeCamp was appointed Assistant Surgeon, October 10, 1823; promoted Surgeon, December 1, 1833; retired in 1862, and died at Saratoga Springs, New York, September 8, 1871. As it is he who makes the official report of the cholera cases in the fort, during the prevalence of the epidemic,*

* Statistical Report on the Sickness and Mortality in the Army of the United States, prepared under the direction of Thomas Lawson, M.D.,

it seems probable that it was he who was present and responsible for the treatment and its results. According to this report, two hundred cases were admitted into hospital in the course of six or seven days, out of the entire force of one thousand, fifty-eight of which terminated fatally. All the cases were treated by calomel and blood-letting, and, according to Surgeon DeCamp, this proved so efficacious in his hands, that he regarded the disease as "robbed of its terrors" (!). He inclines to the opinion that the disease was contagious, in consequence of the fact that several citizens of "the village" died of cholera, although, prior to the arrival of the steamer, no case had occurred, either in the fort or the village. He notes the predisposition to the disease, evident in those of intemperate habits.

The table which is appended in a note,* is compiled from reports of each quarter of the year, published in the volume referred to above. Although it is a return from a military garrison, it is interesting as it is probably the first contribution to vital statistics ever prepared in Chicago.

The inhabitants of the little town did not soon forget

Washington, 1840. This appears to be the first of the brilliant series of publications issued from the Surgeon General's office ; and I am indebted for this, also, to the kindness of Assistant Surgeon John S. Billings, U. S. Army.

* Abstract exhibiting principal diseases at Fort Dearborn for ten years:

Years	1829.	1830.	1831.	1833.	1834.	1835.	1836.	TOTALS.
Mean Strength	91	90	92	104	91	96	104	668
DISEASES:								
Intermittent Fever	17	18		19	32	19	31	136
Remittent Fever		15	1	1	2	5	2	26
Synochal Fever		1	1					2
Diseases of Respiratory Organs	11	8	1	10	22	14	23	89
Diseases of Digestive Organs	30	22	9	69	84	53	42	309
Diseases of Brain and Nervous System ..	2	3			3		1	9
Rheumatic Affections	6	10	3	7	3	7	15	51
Venereal Affections	1	1	3				2	7
Ulcers and Abscesses	16	12		9	8	5	7	57
Wounds and Injuries	19	15	10	41	19	10	14	128
Ebriety	4			11	2	4	8	29
All other Diseases	12	5	2	26	10	20	15	90
TOTALS	118	119	30	193	185	137	160	933

The post was unoccupied during the year 1832, and abandoned in 1840.

the ravages of the epidemic which had visited them. After a year had elapsed, the boatman who paddled up the river in his dug-out canoe, could perceive the ends of the bark coffins* projecting from the sand hills on the right bank, and even occasionally note their exposed contents.

The next medical incumbent at the fort was Dr. Philip Maxwell,† who was born at Guilford, Windham county, Vt., on the 3d of April, 1799. He studied medicine with Dr. Knott of New York City, but took his degree in one of the Medical Universities of his native State.‡ He commenced the practice of his profession in Sackett's Harbor, New York, but temporarily abandoned it when elected a member of the State Legislature. In the year 1832, he was appointed an Assistant Surgeon in the U. S. Army, and was first placed on duty in Green Bay, Wisconsin. He was ordered to report at Fort Dearborn on the 3rd day of February, 1833, and arrived here on the 15th of the next month, remaining until official orders were received for the discontinuance of the post, on the 28th of December, 1836. During the time in which he was on duty in camp at Wisconsin, he was so impressed with the beauty of the country in the neighborhood of Geneva Lake, that he subsequently purchased the entire township, and it is now the seat of the elegant homestead of his family descendants. He was promoted to the Surgeoncy, July 7, 1838, and subsequently served with Gen. Zachary Taylor, at Baton Rouge, and on the St. John's river in Florida. Like Dr. Harmon, he became a civil practitioner in Chicago after resigning his commission, and from 1845 to 1855, was in partnership

* These are erroneously reported as "uncoffined," in *The History of Illinois from 1673 to 1873*, by Alexander Davisson and Bernard Stuvé, Springfield, Ill., 1874. It is probably true, however, that the sepulture was often as hasty and informal as there described.

† The information given above has been obtained through the kindness of his son-in-law, Mr. J. C. Walter, of Chicago.

‡ The names of these institutions, with the date of their foundation, will be found in a note upon page 206.

with Dr. Brockholst McVickar, who is still engaged in the practice of medicine in this city.

Dr. Maxwell had such a physique as one can admire to-day in some of the older of our army officers. He was straight and portly in figure, six feet and two inches in height, two hundred and seventy-five pounds in weight. For all this, according to Mr. B. F. Taylor, who has drawn several pictures of early Chicago in his graphic and entertaining style, "his step was as light as that of a wisp of a girl." Judge Caton still remembers his appearance in the year 1836, when engaged in dancing at a ball dressed in full regimentals with epaulets. On this occasion his partner was one of the servant-maids of his host. Whether this occurred through inadvertence or in consequence of the well-known scarcity of ladies in the early days on the frontier, may not perhaps be determined. Hoffman is also supposed to refer to Dr. Maxwell in his characteristic account of one of the first balls given in Chicago, when he describes "the golden aiguillette of a handsome surgeon, flapping in unison with the glass beads upon a scrawny neck of fifty."*

Dr. Maxwell died on the 5th of November, 1859, aged 60 years. His name will ever be honored in Chicago as the second in its line of medical succession; and his portrait may still be seen with those of the twelve gentlemen who are counted among its oldest residents."†

Long before Dr. Maxwell settled in private practice, the development of the town had induced other physicians to engage in professional business within its limits. This development, however, was at first feeble and protracted. At the time of the sale of land by the commissioners in 1830, the town lots, eighty by one hundred

* Winter in the West. Charles Fenno Hoffman. 1834.

† This picture was taken by the photographer, A. Hesler, in 1856. It includes the faces of Wm. B. Ogden, the first mayor of Chicago, J. H. Kinzie, Mark Beaubien, Geo. W. Dole, Jacob Russell, B. W. Raymond, G. S. Hubbard, Jno. P. Chapin, Philip Maxwell, Wm. B. Egan, and others.

and sixty feet, sold for between forty and sixty dollars. In the year 1832, the assessment for taxes amounted to but \$357.78; and the first public improvement was an estray pen, erected on the site of the present Court House at an expense of twelve dollars. Not many vessels had entered the harbor, since the schooner Marengo, foremost of a mighty fleet, floated into the river from Detroit in 1831.* It was not indeed till the year 1834, that one could see any arrangement of houses in such an order as to form a street. And yet, at that date, there was a marked increase in the population, according to the figures given in a Gazetteer of the State, then published.† It was estimated that there were one thousand inhabitants of the town—an increase of nearly eight hundred since the preceding year. There were “three houses for public worship, an academy, *an infant* and other schools, twenty-five or thirty stores, some of them doing a *large* business, several taverns, and a printing office.”‡

Of the physicians who succeeded those heretofore noticed, space forbids much more than a passing mention. In an address delivered before the Rock River Medical Society, at the time of its organization,§ Dr. Josiah C. Goodhue spoke as follows: “Dr. Harmon was the pioneer among the medical faculty of this corner of Illinois; Dr. Kimberly was the second; then came Dr. Jno. T. Temple; Dr. Clark next; Drs. Egan, Eldridge and myself soon followed, at about the same time. This brings us to the spring of 1834, when a perfect flood of emigration poured in, and with it a sprinkling of doctors. Prior to 1840, nine-tenths of all the physicians who had located themselves in this region, had done so with reference to pursuing agriculture, and with the avowed intention of abandoning medical practice; most

* See Reynolds' Sketches, op. cit.

† A Gazetteer of Illinois; J. M. Peck, Jacksonville, 1834.

‡ The Chicago Democrat—established by John Calhoun.

§ Illinois and Indiana Medical and Surgical Journal, Vol. 2, p. 260.

of whom, either from the necessities of the case, or from finding more truth than poetry in pounding out rails, resumed their profession and divided their attention between farming and medicine." In the last sentence, Dr. Goodhue of course refers chiefly to practitioners settling in that part of the country where the Rock River Medical Society proposed to hold jurisdiction.

Of the physicians named above, only one is now living, Dr. Eldridge, who resides at Naperville, Ill.; but all were more or less known to many of the citizens of Chicago who have survived them. Dr. Jno. T. Temple, who removed to the city in 1833, was a graduate of Middlebury College, Castleton, Vt., (Dec. 29, 1830), and seems for a time to have done duty as a volunteer surgeon of the garrison. So far as is known, he should be credited with the performance of the first autopsy made in the city, as well as with the rendition of the first medico-legal testimony in court. An Irishman had been indicted for murder; and Dr. Temple was summoned to make a post-mortem examination of the victim. The ease with which he separated by a few skillful touches of his knife, the bones concerned in the sterno-clavicular articulation, is still remembered by those who witnessed the unusual spectacle. The attorney for the defense, however, on this occasion, succeeded in proving that his client had been guilty of manslaughter, and in securing his acquittal on the ground that he was innocent of murder as charged in the indictment! In comparing the two professions, as they here appear in their representatives, it may be fairly inferred that the anatomical knowledge of the expert was more than equal to the legal acumen of the judge!

Dr. Temple, soon after, secured a contract from the Postmaster General, Amos Kendall, for carrying the mail between Chicago and Ottawa. He obtained an elegant, thorough-brace post carriage from Detroit, which was shipped to this port via the lakes, and, on the 1st of January, 1834, drove the first mail coach with his own

hand from this city to the end of the route for which he had received a contract. On this first trip, he was accompanied by the Hon. Jno. D. Caton, to whom I am greatly indebted for many of these details. The demand for this accommodation could not then have been very great, as there was *no mail matter for transportation in the bag carried on this first trip!**

Dr. William Bradshaw Egan was born "on the banks of the beautiful Lake of Killarney," September 28, 1808, and was the second cousin of Daniel O'Connell, whose name has already appeared in these pages. His medical studies were begun with Dr. McGuire, a surgeon in the Lancashire collieries, but were also pursued in London and in the Dublin Lying-in-Hospital.† After his arrival in this country, he was licensed as a physician by the Medical Board of the State of New Jersey, in the spring of 1830, and began his professional career in Newark and New York, having been associated in the latter city, with Prof. McNeven and Dr. Busche. Here also he was married to Miss Emeline M. Babbatt, who accompanied him to Chicago in the fall of 1833. In the year 1846, he purchased for three dollars per acre, the beautiful property in the West Division of the city, comprising three and one-half acres, which is to-day the residence of his family; and also laid out his farm—Egandale Park, on the Lake Shore, about six miles distant from the Court House. At one time he was also in possession of the land upon which the Tremont House now stands. During the sessions of 1853-4, he was a member of the lower house of the State Legislature; and also during his lifetime served as recorder of the city and county.

Dr. Egan was, as has been often remarked, a perfect specimen of the "fine old Irish gentleman." He had a noble presence and a commanding figure; but that which especially attracted his associates, was his exuberant

* Dr. Temple is said to be now living in St. Louis, and engaged in homœopathic practice.

† Chicago Magazine, Vol. 1, No. 3; May, 1857.

fancy, his sparkling wit and his keen perception and graphic delineation of the ludicrous.

He not only established an excellent professional reputation in Chicago, but was much esteemed socially; not more so, however, than his wife, whose graces of person and character were the admiration of the circle in which they both moved. Mr. Joseph Grant Wilson, in some sketches recently published in *Appleton's Journal*, describes the doctor, as he once appeared after the girth of his saddle had given way during a wolf hunt, and his full-blooded Kentucky racer had left him: "standing on the prairie, a large fur cap on his head, an enormous Scotch plaid cloak (purchased at the 'store' of Mr. G. S. Hubbard) belted around his Brobdignagian waist, and shod with buffalo overshoes." It is of Dr. Egan that the story is told which has lately been revived and gone the rounds of the medical press. He had engaged extensively in the purchase and sale of real estate, the conditions of transfer at that day being generally dependent on what was known as "canal time." It is said that the doctor having been, on one occasion, asked by a lady who was his patient, how she should take the medicine ordered for her, the response was: "a quarter down and the balance in one, two and three years"! At the time of the first breaking of ground for the construction of the Illinois and Michigan Canal, on the 4th of July, 1836, Dr. Egan was selected to deliver the oration; and this is only one of several evidences of his great popularity. We find the beauty of his garden and his genial hospitality extolled in complimentary terms in a work which appeared a few days before the date of his death.* This event occurred in 1856.

Dr. Josiah C. Goodhue came to Chicago directly from Canada, but was the son of an American physician, the first president of the Berkshire County Medical College,

* *Summer Rambles in the West.* Mrs. Ellet. New York. 1853.

of Pittsfield, Mass.* He enjoyed a very large and lucrative practice while residing in this city, but subsequently removed to Rockford, Ill., where he died later in consequence of an accident. Drs. Stuart and Lord were among the physicians first succeeding those enumerated above—the former having enjoyed the reputation of being the Beau Brummel of the profession, and the latter having distinguished himself by securing a patent for a labor-saving pill machine.

Dr. John H. Foster came to Chicago in 1835, and died here on the 18th day of May, 1874.

It would be unjust in this connection to leave unmentioned the name of the first druggist in Chicago. Mr. Philo Carpenter was a native of Massachusetts, born on the 27th day of February, 1805. In the year 1827, he commenced the study of medicine which he prosecuted for two or three years under the direction of Dr. Amatus Robbins, of Troy, New York. He arrived in Chicago in the month of July, 1832, just at the time when the cholera-stricken troops under the command of Gen. Scott, had been transported to the fort. Mr. Carpenter had abandoned his medical studies in order to pursue the more congenial business of an apothecary, but in the present emergency, he attended many cases of cholera, and rendered an assistance which was very highly appreciated. Soon after, he opened a drug and general store in a small log cabin near the eastern end of the present Lake Street bridge, from which, as his business increased, he removed into a more pretentious frame building. In the spring of 1833, Dr. Edmund Stoughton Kimberly, of Troy, N. Y., alluded to in Dr. Goodhue's address, in company with Mr. Peter Pruyne, opened a second druggists' establishment. Dr. Kimberly was registered in the year 1833, among those who voted for the incorporation of the town. He died at his late

* Extracts from Journal of Rev. Jeremiah Porter ; recently published in the Chicago Times.

residence in Lake County, Illinois, Oct. 25, 1874, aged 72 years.

Without pausing to comment further upon the history of the medical gentlemen who rapidly succeeded those already mentioned, I hasten to present a brief sketch of the remarkable man, who, perhaps to a greater extent than any of his professional peers in Chicago, achieved a national reputation. Through the kindness of the Hon. Edward Huntington, of Rome, N. Y., I have obtained access to some notes prepared on the subject by Calvert Comstock, Esq., from which the subjoined details have been in part supplied.

Daniel Brainard was born on the fifteenth day of May, 1812, in the town of Western,* Oneida Co., N. Y. His father, Jephthai Brainard,† was a farmer in comfortable pecuniary circumstances and of excellent character, while his mother was a most exemplary woman, whose influence was deeply impressed upon her children, and doubtless did much in awakening the genius and inspiring the aims of the son in his early life. He was given a good common school and academic education, which laid the foundation for that exact and exhaustive method of investigation which characterized his subsequent professional studies. Having chosen the profession of medicine, he entered the office of Dr. Harold H. Pope, a distinguished physician and surgeon of Rome, N. Y., pursuing his studies also in Whitesboro, and New York City, and obtaining his degree of Jefferson College, Philadelphia, Pa., in the year 1834.

* In some biographical notices, the place of his birth is erroneously stated to be Whitesboro, in the same county.

† In a Genealogy of the Brainard Family by the late Rev. David D. Field, 1857, it appears that the first individual who bore the name in America, was a Daniel Brainard, of Haddam, Ct. (1662). But, according to Mr. Hurlbut, in whose possession the volume is, in spite of the industrious labors of Mr. Field, the materials it contains are so wretchedly arranged, misplaced and mystified, that the work is of comparatively little value; and it is almost impossible to trace with any clearness the line of ancestry, from the records there given.

During this preparatory career he delivered some lectures of a scientific character in Fairfield, N. Y., and in the course of the two years succeeding his admission to the profession; he delivered another series of lectures on anatomy and physiology in the Oneida Institute. He commenced the practice of medicine in Whitesboro, N. Y., whither his family had removed from the farm in Western, on account of the educational advantages afforded in the former place. Here he remained for some two years in partnership with Dr. R. S. Sykes,* a gentleman who had directed his medical studies before his departure from the village.

Henry H. Hurlbut, Esq., of Chicago, who has kindly furnished several facts of interest in this connection, informs me that he was recently shown by a lady a small quarto volume which affords a glimpse of the literary annals of the little village. It is the record of proceedings of the "Mæonian Circle"—composed of young ladies and gentlemen—and contains the signature of Dr. Brainard as an officer of the Club in the autumn of 1834. Among the names of members appears that also of Miss F. M. Berry, the authoress of the "Widow Bedott Papers."

Soon after this, Dr. Brainard determined to remove to the West. His advent and earliest history in Chicago, are best described in the language of the Hon. J. D. Caton, to whom I have already had occasion to express my obligations for valuable aid in the preparation of this sketch :

"About the first of September, 1835, Dr. Brainard rode up to my office, wearing pretty seedy clothes and mounted on a little Indian pony. He reported that he was nearly out of funds, and asked my advice as to the propriety of commencing practice here. We had been professional students together in Rome, N. Y., when he was in the office of Dr. Pope there. I knew him to have been an ambitious and studious young man,

* Dr. Sykes is said to be now living in Chicago, aged 80 years.

of great firmness and ability, and did not doubt that the three years since I had seen him, had been profitably spent in acquiring a knowledge of his profession. I advised him to go to the Indian camp where the Pottawattomies were gathered, preparatory to starting for their new location west of the Mississippi river, sell his pony, take a desk or rather a little table in my office, and put his shingle by the side of the door, promising to aid him as best I could in building up a business. During the first year, the doctor's practice did not enter those circles of which he was most ambitious. Indeed it was mostly confined to the poorest of the population, and he anxiously looked for a door which should give him admission to a better class of patients. While he answered every call, whether there was a prospect of remuneration or not,* he felt that he was qualified to attend those who were able to pay him liberally for his services. At length the door was opened. A schooner was wrecked south of the town, on which were a man and his wife, who escaped with barely their clothes on their backs. They were rather simple people, and belonged to the lowest walks of life. They started for the country on foot, begging their way, and, when distant some twelve miles, encountered a party of men with a drove of horses, one of whom pretended he was a sheriff, and arrested them for improper purposes. When they were set at liberty, they returned to the town, and came to me for legal advice, the woman being about five months advanced in pregnancy. I commenced a suit for the redress of their grievances, and the doctor took an active interest in their welfare. He procured for them a small house on the North Side, and made personal appeals to all the ladies in the neighborhood, for provision for their needs. Mrs. John H. Kinzie became particularly interested in their case, and paid frequent visits to the cabin with other ladies. The nervous system of the

* Dr. J. W. Freer informs me that this was true of Dr. Brainard in the height of his prosperity.

woman had been greatly shattered, and a miscarriage was constantly apprehended. The doctor was unremitting in his attentions, and finally carried her through her confinement with marked success, exhibiting to the ladies who had taken so much interest in the patient, a fine living child. This was the long desired opportunity, and it did not fail to produce its results. Dr. Brainard immediately became famous. His disinterested sympathy, his goodness of heart, his skillful treatment and his marked success, were now the subject of comment in all circles. At my request, Dr. Goodhue also visited the woman—as I desired to secure his additional testimony in the case—and he too became very favorably impressed with the talents and acquirements of the young practitioner, and extended to him a helping and efficient hand.

“During the winter of 1837–38, Dr. Brainard first communicated to me his project looking to the foundation of Rush College.

“In 1838, a laborer on the canal near Lockport, fractured his thigh, and before union had been completely effected, he came to Chicago on foot, where he found himself unable to walk further and quite destitute. He was taken to the poor-house where he rapidly grew worse, the limb becoming excessively œdematous. A council of physicians was summoned, consisting of Drs. Brainard, Maxwell, Goodhue, Egan, and perhaps one or two others. All were agreed as to the necessity of amputation, but, while Brainard insisted that the operation should be performed at the hip joint, the others urged that removal below the trochanters would answer equally well. The patient was about twenty-three years of age, had an excellent physique, and was, so far as known, of good habits. The operation was assigned to Brainard, and Goodhue was entrusted with the control of the femoral artery, as it emerges from the pelvis. This he was to accomplish with his thumbs; and he had as good thumbs as any man I ever knew. The moment the

amputation was effected, Brainard passed one finger into the medullary cavity, and brought out upon it a portion of the medulla which, in the process of disorganization, had become black. As he exhibited it he looked at Goodhue, who simply nodded his head. Not a word was spoken by any one but the patient, and what he said no one knew. Brainard instantly took up the knife and again amputated, this time at the joint, after which the wound was dressed. The double operation occupied but a very short time.

"In about one month the wound had very nearly healed, only a granulating surface of about three-fourths of an inch in length at the upper corner discharged a healthy pus. I was present the last time the wound was dressed, and expected to see the patient speedily discharged as cured. But that night secondary hæmorrhage occurred, a large portion of the wound was opened afresh, and the patient died almost immediately. At the post mortem section, an enormous mass of osseous tubercles was removed from the lungs, liver and heart, and a large, bony neoplasm was found attached to the pelvic bones, and surrounding the femoral artery, so that the mouth of the latter remained patulous. A similar deposit, three inches in diameter, had been found about the fractured femur, and when this was sawn through, the line of demarcation between the neoplasm and the true bone was distinctly discernible.

"The operation was regarded as a success, and it completely established Dr. Brainard's reputation as a surgeon."

There can be but little doubt that a number of amputations at the hip joint must have been performed in this country before the date of the operation thus graphically described by Judge Caton, but it is certain that we have records of only two or three of these at the most. In a recent letter, President J. W. Freer, of Rush College, informs me that the case referred to, was one of enchondroma of the femur, and that the specimen it furnished,

adorned the museum of the College until the destruction of the latter by fire.

Some time after Dr. Brainard's arrival in Chicago, he filled the editorial chair of the *Chicago Democrat*, to which the Hon. John Wentworth succeeded.

In the year 1839, Dr. Brainard visited Paris, where he remained for about two years engaged in perfecting himself in the details of professional service, availing himself of the advantages offered in the medical institutions of that city, and laboring with great assiduity. On his return, he delivered a course of medical lectures in St. Louis, and soon after perfected his plans for the establishment and permanent foundation of Rush Medical College. The success which attended the efforts of himself and his associates, not only in this direction but in the publication of the periodical, of which the present MEDICAL JOURNAL AND EXAMINER is the direct and legitimate descendant, is too well known to the profession at large to require comment.

Dr. Brainard revisited Paris in 1852, when he was accompanied by his wife. It was at this time that he obtained permission to prosecute his researches on the subject of poisoned wounds by the aid of experiments upon the reptiles in the Jardin des Plantes. He was then made an honorary member of the Société de Chirurgie of Paris, and of the Medical Society of the Canton of Geneva. In the year 1854, he gained the prize offered by the St. Louis Medical Society for the presentation of his paper on the Treatment of Ununited Fractures—the method he then proposed having since received the endorsement of the entire profession.

A short time before his death he spent a day in Rome, N. Y., with his life-long friend, Mr. Comstock, pleasantly recounting the incidents of his foreign travel, expressing the greatest interest in the prosecution of his work connected with his lectures in the College, and anticipating a return to Europe for a third visit with a view to a still more extended course of investigations.

At the same time he seemed to be impressed with a feeling that he had not much longer to live. In a few weeks from this date, his friend in Rome received the telegraphic announcement of his death. He died of cholera, in the old Sherman House of Chicago, on the 10th day of October, 1866, in the fifty-fifth year of his age.

Dr. Brainard was a master of many of the collateral branches of medical science. He was a botanist and geologist. He excelled also in literature, and his contributions to medical periodicals are many of them masterpieces of terse, vigorous and lucid expression. A generation of men who never looked in his face are yet familiar with his features. He was tall and vigorous in frame, with a large, finely-shaped head, and keen, penetrating eyes. He seemed indeed to possess the three qualities which were considered in the 16th century to be the prerequisites of a good surgeon, viz.: "the eye of a hawk, the hand of a woman, and the heart of a lion." Dr. Brainard's name is graven ineffaceably upon the annals of American Surgery. His successors may well emulate his indomitable perseverance in the face of apparently overwhelming obstacles, his unflagging industry, and the acquisition of the science and skill which perforce spring from these high qualities.

In the Lakeside Annual Directory for 1875-6, is reproduced in *fac simile* the first Directory ever issued in Chicago, dated 1839—the original having been obtained through the courtesy of Henry H. Hurlbut, Esq.

By referring to this, it will be seen that Dr. Brainard's name occurs with those of Drs. S. B. Gray and Betts, as constituting a Board of Health. This Board, it is unnecessary to say, was not organized under any such law as that which provides for the Board of Health as now constituted. Dr. Charles V. Dyer is there registered as City Physician—he had removed to the city three years before, in 1835. Besides these, the Directory contains the names of Dr. Jno. Brinkerhoff, Dr. Clarke, Dr. Levi D. Boone, Dr. Eldridge, Dr. Edmund S. Kimberly, Dr.

Merrick, Dr. Post, and Dr. J. Jay Stuart. Drs. Brinkerhoff, Betts, Post and Stuart, are known to be now dead, besides those whose decease has been heretofore noted in these pages.

Dr. Boone, whose name appears in the list, deserves more than a passing mention. He is the grand nephew of the great Kentucky pioneer, Daniel Boone, and was born on the 8th of December, 1808. He studied medicine in the Transylvania University, came to Illinois in 1829, and, having volunteered as a private in the Black Hawk war, was finally promoted to the Surgeoncy of the 2nd Regiment, 3rd Brigade, Col. Jacob Frye. Dr. Boone came to Chicago in 1836, and still resides here, though he is now gradually withdrawing from the business incidental to the management of his estate.*

The charter for the incorporation of Rush College was obtained from the Legislature in 1837, and was the first instrument issued for a similar purpose to any educational institution in the State of Illinois. The first building occupied by the Faculty was erected in the year 1844, after the designs of Mr. Van Osdel. A passably well-executed cut of this structure was given in the City Directory of the ensuing year.† The names of Professors are thus given: Daniel Brainard, M.D., Professor of Surgery; Austin Flint, M.D., Professor of the Institutes and Practice of Medicine; G. N. Fitch, M.D., Professor of Obstetrics and Diseases of Women and Children; J. V. Z. Blaney, M.D., Professor of Chemistry

* The Directory from which these names have been transcribed was, as might be expected, a very incomplete affair. Mr. Fergus, an early resident of Chicago, has, with considerable labor, compiled a tolerably complete list of the business men of the town in 1839, in which are to be found the following *additional* names, designated as "doctors": Zimon P. Haven, Richard Murphy, William Russell, D. S. Smith, John Mark Smith, Simeon Willard.

† Business Advertiser and General Directory of the City of Chicago, 1845-6. J. W. Norris. This volume is in the valuable collection of Mr. Cooke, of Messrs. Keen, Cooke & Co., publishers of the CHICAGO MEDICAL JOURNAL AND EXAMINER, and I am under obligations to him for the fac simile shown on next page, of the cut of the old Rush College.

and Pharmacy ; Jno. McLean, M.D., Professor of Materia Medica and Therapeutics ; and W. B. Herrick, M.D., Professor of Anatomy. Dr. Herrick became subsequently the first President of the Illinois State Medical Society.



THE FIRST RUSH MEDICAL COLLEGE. (1844).

Under the heading of "Physicians and Surgeons" are enrolled twenty-eight names. In addition to three of the professors named above, who were residents of the city, are to be found the names of William Allen, H. H. Beardsly, L. D. Boone, Jno. Brinkerhoff, S. S. Cornell, A. W. Davisson, C. H. Duck, C. V. Dyer, J. W. Eldridge, M. L. Knapp, Philip Maxwell, Aaron Pitney, D. S. Smith, and J. J. Stuart.

In the year 1847, the first general hospital in the city was established, chiefly through the instrumentality of Dr. Brainard and his associates, in a large warehouse on the corner of North Water and Dearborn streets. This was known as "Tippecanoe Hall." It contained one hundred beds, which were well filled, especially during

the two succeeding years when ship-fever prevailed, chiefly among the immigrants. Drs. Brainard, Blaney and Herrick constituted the medical staff.

In consequence of the high price of quinine, which was then worth nearly ten dollars per ounce, the county



NEW EDIFICE OF RUSH MEDICAL COLLEGE NOW IN PROCESS OF ERECTION.

authorities who furnished the supplies, refused to provide it for the use of patients, and it was, therefore, found necessary to employ strychnia as a substitute, which answered nearly all purposes in doses of one-eighth of a grain.

Dr. J. W. Freer served as an interne of this institution for two years, and was therefore the first hospital interne in Chicago. In this capacity, he stood first of a long line of industrious and learned successors, who have since distinguished themselves for their attainments in almost every department of medicine.

The first number of the Illinois Medical and Surgical Journal was issued in April, 1844, under the editorial management of James V. Z. Blaney, A.M., M.D. Its reading matter is contained in one form of sixteen pages, just one-sixth the size of the MEDICAL JOURNAL AND EXAMINER, as now published. The very modest introductory sets forth a fair ground for its *raison d'être*. "We have around us three large States: Indiana, Michigan and Illinois—and two extensive territories: Wisconsin and Iowa—filled with medical men of the highest intelligence and most praiseworthy enterprise, and not a single medical journal has been previously issued in all this vast Northwestern region." The number contains an original contribution from Dr. Brainard, on the treatment of false ankylosis by extension, illustrated by a very creditable wood cut; a brief summary of progress in practical medicine, which contains extracts from the 2d Vol. of Pereira's *Materia Medica and Therapeutics*, the 8th No. of Braithwaite's *Retrospect*, and the *American Journal* for January, 1844; and *Bibliographical Notices* of a *Dissector* by Erasmus Wilson, and *An Anatomical Atlas*, by H. H. Smith, M.D.; to both of these reviews Dr. Brainard's initials are appended. There are but two items of general intelligence, both clipped from the *Medical News*.*

The first meeting with a view to the establishment of the Chicago Medical College, was held in the office of Drs. David Rutter and Ralph N. Isham, on the 12th day of March, 1859.† Drs. Hosmer A. Johnson and Edmund Andrews were then present, together with the gentlemen first named. After a temporary organization had been effected, it was determined to organize a Med-

* This volume is in the possession of Dr. J. Adams Allen, who has been so long identified with the fortunes of this Journal. For a history of the thorny reverses out of which has been plucked its flower of success, consult Dr. Allen's interesting sketch in the January No. for 1874.

† History of the Chicago Medical College—An Introductory Lecture to the College Session of 1870–71. H. A. Johnson, A.M., M.D., Chicago, 1870.

ical Faculty, on the basis of a proposition made by the trustees of the Lind University, and an agreement to that effect was signed, both by the Executive Committee of the University and by the physicians who were there assembled.

The first faculty of the new medical school was constituted as follows: David Rutter, M.D., Emeritus Professor of Obstetrics and Diseases of Women and Children; H. A. Johnson, M.D., Professor of Physiology and Histology; E. Andrews, M.D., Professor of the Principles and Practice of Surgery; R. N. Isham, M.D., Professor of Surgical Anatomy and the Operations of Surgery; N. S. Davis, M.D., Professor of the Principles and Practice of Medicine; W. H. Byford, M.D., Professor of Midwifery and Diseases of Women and Children; J. H. Hollister, M.D., Professor of Physiology and Histology; Dr. Mahla, Professor of Chemistry; M. K. Taylor, M.D., Professor of General Pathology and Public Hygiene; Titus DeVille, M.D., Professor of Descriptive Anatomy; and H. G. Spafford, Esq., Professor of Medical Jurisprudence.

The first course of lectures was given in Lind's Block, on Market, between Randolph and Lake streets, the class consisting of but thirty-three members, of whom nine received, at the commencement exercises, the degree of Doctor of Medicine. In the summer of 1863, arrangements were perfected for the erection of a building on the corner of State and Twenty-second streets, which was occupied by the Chicago Medical College up to the time of its removal, in 1870, to the present elegant and commodious structure on the corner of Prairie avenue and Twenty-sixth street, in close proximity to Mercy Hospital. During the previous year, this institution had become the Medical Department of the Northwestern University.

On the 25th day of April, 1868, the Faculty arranged the curriculum of the College, so that three consecutive courses of lectures should be given, with a separate

group of studies for each of the three years of pupilage. The honor which is due the Chicago Medical College for the inauguration of this scheme has been persistently ignored by some of the Medical Schools in the East. It is certainly gratifying to note that this step in the direction of that reform in medical education which is now felt to be imperatively demanded, was first taken in Chicago. It is now a matter of record, and the impartial historian who shall write the history of medicine in the United States, cannot fail to do justice, in this particular, to the young claimant of the West.



THE CHICAGO MEDICAL COLLEGE BUILDING.

The medical board of Mercy Hospital is constituted by the faculty of the adjacent college. The first named institution originated in consequence of a charter obtained from the State legislature, by Dr. John Evans and others, for the establishment of the "Illinois General Hospital of the Lakes." This instrument named Dr. Evans and Judges Dickey and Skinner as Trustees. Nothing, however, had been accomplished toward raising funds or establishing the hospital until the summer of 1850, when Prof. N. S. Davis gave a course of six lectures on the sanitary condition of the city, and the means for its improvement: notice having been previously given th

proceeds would be devoted to hospital purposes. One hundred dollars were thus realized; and this sum was subsequently increased by the donations of a few private individuals. Twelve beds were at once purchased and placed in the old Lake House Hotel.

The hospital was then opened for the accommodation of patients, nominally under the supervision of the trustees named above, Prof. Davis having charge of the medical, and Prof. Brainard, of the surgical patients. The beds were well filled and supplied the means for daily clinical instruction during the fall and winter of 1850-1. It was placed in charge of the Sisters of Mercy in the spring of 1851, who enlarged its accommodations, and subsequently changed its name to Mercy Hospital. The elegant edifice which they now possess, is capable of accommodating five hundred patients; and it may be added that from the date of the leasing of the old apartments containing twelve beds, to the present—a term of twenty-five years—Prof. N. S. Davis has continuously done service in its wards, as a physician and clinical teacher.

The purpose of this sketch, though but imperfectly fulfilled, has been accomplished, so far as to call attention to the character and circumstances of the early medical practitioners of Chicago. Many of those who immediately succeeded them are still living in our midst, and retain a recollection of events that have transpired in their time, which it would be vain to attempt to record in these pages. I conclude with a brief outline of events connected with the organization of the County Hospital, located in this city, not only because it is at present the largest of our public charities, but also because the recent erection of a new building for its accommodation, seems to mark an era in its history.

During the cholera epidemic of 1854-5, the city authorities established a cholera hospital on the corner of 18th and Arnold streets—the precise location of the building now occupied as a county hospital. The frame build-

ings then erected were cheaply built, and intended simply to meet immediate necessities. Dr. Brock. McVickar, who was then the City Physician, began at once to urge the Board of Health to erect a permanent city hospital. His importunity caused a movement to take form, which resulted in the erection of the city hospital building, which is at present used for a county hospital.

When completed, in the summer of 1856, the medical staff, as organized by the Board of Health, was constituted of two bodies—the so-called Allopathic and Homoeopathic Boards—the former consisting of Drs. Geo. K. Amerman, De Laskie Miller, Jos. P. Ross, Geo. Schlötzer, Ralph N. Isham, and Wm. Wagner. The members of the regular profession held an indignation meeting soon after, in consequence of the mongrel character of this organization; and the newly appointed medical staff also held several meetings. Hon. Jno. Wentworth, then Mayor of Chicago, and ex-officio member of the Board of Health, also endeavored to organize a board of reputable practitioners, but failed in the effort.

It then became evident that, the cholera epidemic having subsided, and the city being charged merely with the care of those affected with contagious and infectious diseases, there were no patients for whom the city was obliged to provide! The care of the sick poor, both of the city and county, devolved upon the latter. Thus the building remained unoccupied for a year or two.

In 1858, Drs. Geo. K. Amerman and J. P. Ross associated themselves with four other medical gentlemen, and leased the building from the city authorities, for the purpose of conducting therein a public hospital for the sick. They also secured a contract for the care of the sick poor of the county. The medical board was composed of the gentlemen already named in the first board, with the addition of Drs. Daniel Brainard and S. C. Blake, and the exception of Drs. Isham and Wagner. Clinical instruction was at once given by these gentlemen for eight

months in the year, chiefly to the students of Rush College, and continued till the summer of 1863.

At that date the hospital was taken by the Government authorities—Chicago having been made a military post during the War of the Rebellion, and Drs. Ross and Amerman were placed in charge of the hospital on contract service, under the control of the surgeon of the post, Dr. Brock. McVickar. In the course of a few months, the institution was changed into a Government Hospital for the Eye and Ear, and placed in charge of Dr. Jos. Hildreth, in whose care it remained till the close of the war. It was then named the DeMarr Eye and Ear Hospital.

Drs. Ross and Amerman at once actively interested themselves in the re-establishment of the hospital. On looking over the field, they became convinced not only that the county authorities would look with favor upon the organization of a county hospital, but also that, in order to compass the end, it would be necessary for one of them to become a politician. Dr. Amerman accordingly secured his election as a Supervisor, and, in 1866, the first year of his service as such, he inaugurated and organized the Cook County Hospital, for the care of the indigent poor, and for the clinical instruction of medical students. During this same year, Dr. Amerman was obliged to relinquish his official position, on account of ill health, and Dr. J. P. Ross was at once elected to fill the vacancy, as Supervisor and Chairman of the Hospital Committee. The duties incident to this position he continued to discharge for the two succeeding years.

All this was undertaken for the sole purpose of permanently establishing and perpetuating the institution. It is therefore evident that to Dr. J. P. Ross and his old friend and colleague, Dr. G. K. Amerman, is solely due the honor of conducting to a successful issue, the plans for the development of this great municipal charity.

The names of other public institutions and charities of Chicago, in which the profession of the city is inter-

ested, together with the date of the establishment of each, are appended in a note.*

The medical profession of Chicago enters upon this centennial year of national existence, with the names of three hundred and sixty-six physicians and surgeons enrolled upon its register. Many of these are both honorable and honored. Of the record made in the past they need not be ashamed; in much that has been accomplished they feel a just pride.

At the same time the experiences of the last forty years have taught them the sources of their weakness and therefore of their danger. If they have learned anything it is this, that to be conscious of deficiency and danger is to acquire the alphabet of knowledge—that to render any body of men a living power in a community, it is needful that each individual member of it should exert a wise, wholesome and weighty influence in the circle where he moves. They look, therefore, rather to their inherent capabilities than to any legislative or other source, for growth in reputation and authority. Already a tendency has been developed, for the crystallization of this power and authority, about certain defined centres. That this process is destined to continue until its standards are elevated, its code admired and respected, and its

* Chicago Medical Society, 1836; Chicago Protestant Orphan Asylum, 1849; Mercy Hospital, 1850; Illinois State Medical Society, 1850; Saint Joseph's Orphan Asylum, 1849; Chicago Academy of Sciences, 1857; House of the Good Shepherd, 1859; Home for the Friendless, 1859; Illinois Charitable Eye and Ear Infirmary, 1858; Chicago College of Pharmacy, 1859; Chicago Relief and Aid Society, 1857; Nursery and Half Orphan Asylum, 1860; St. George's Benevolent Society, 1860; St. Luke's Hospital, 1863; Old People's Home, 1865; Erring Woman's Refuge, 1865; Chicago Hospital for Women and Children, 1865; Alexian Brothers' Hospital, 1860; Central Dispensary, 1867; St. Joseph's Hospital, 1869; Washingtonian Home, 1867; Uhlich Evangelical Lutheran Association, 1869; State Microscopical Society, 1869; Woman's Hospital Medical College, 1870; Woman's Hospital State of Illinois, 1871; Cook County Department of Public Charities, 1872; Foundlings' Home, 1871; Chicago Society of Physicians and Surgeons, 1872; Chicago Medico-Historical Society, 1874; Chicago Medical Press Association, 1874; Orphan Girls' Home, 1874.

accidental excrescences removed, no one can doubt. Then and only then will it become as fair and as forcible in the view of the public, as in the vision of its most ardent representatives.

SOME REMARKS ON INTRA-UTERINE POLYPI, WITH SPECIAL REFERENCE TO THEIR DIAGNOSIS AND SURGICAL TREATMENT; WITH THREE CASES.

BEING THE REPORT OF THE GYNECOLOGICAL SUB-SECTION OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

(Read before the Chicago Society of Physicians and Surgeons, Nov. 22, 1875.)

BY A. REEVES JACKSON, M.D.,

Surgeon-in-Chief of the Woman's Hospital of the State of Illinois; Lecturer on Diseases of Women in Rush Medical College.

(CONCLUDED.)

The following cases will serve to illustrate the principal points of diagnosis and treatment:

CASE I. *Symptoms of Cancer—Removal of an Intra-Uterine Mucous Polypus—Rapid Recovery.*

Miss S., an unmarried woman 39 years of age, gave the following history: Three years ago she first noticed a leucorrhœal discharge of a yellowish glairy character. After the lapse of a few months it became thinner, more profuse, and sometimes had an offensive odor. At the same time her menstrual periods were increased in duration, although the quantity of the discharge was not notably more profuse. These symptoms were attributed to what the patient regarded as the approaching change of life, and she sought no advice. They became more and more severe, however, and during the past year the menstrual flow had been very abundant, the leucorrhœa watery in character, usually tinged with blood, and exceedingly offensive. It was so irritating as to produce an intolerable pruritus vulvæ. She had become greatly emaciated, her appetite was impaired and bowels constipated.

Here was a grave history, and I feared that the case was one of malignant disease. An examination revealed a short vagina with relaxed walls, and a soft, smooth, yielding cervix, without tenderness. The os was patulous, but not sufficiently to admit the point of the finger. The body of the uterus was not enlarged, and was not painful under pressure by conjoined manipulation. The sound, which was readily passed to the fundus at normal depth, yielded no further information, and its withdrawal was followed by a rather copious discharge of blood.

On the following day a sponge tent, of medium size, was introduced, and, although it seemed to fill the cervical canal, I succeeded in passing by its side three laminaria tents, each as large as a crow-quill. At the end of twenty-four hours these were removed, and I was able to introduce the index finger a short distance beyond the os internum which was amply dilated. About three-fourths of an inch beyond the external os the finger came in contact with a round, smooth, soft polypus the size of a gooseberry, attached by a short pedicle to the posterior wall of the cervix, just below the internal os. A forceps, such as is used for the removal of nasal polypi, was passed into the cervical canal, and, guided by the finger, its blades were made to grasp the peduncle. The instrument being rotated two or three times on its axis, the growth was detached and brought away. Fuming nitric acid was applied to the whole interior of the cervix and the patient put in bed.

The symptoms ceased at once, and the patient, now forty-two years of age, menstruates in all respects normally—or, at least, did so a few months ago.

CASE II. Menorrhagia, with great Enlargement of the Womb—Two large Fibrous Polypi—Removal of one by the Ecraseur, and the other partially thrown off Spontaneously—Death from Metro-Peritonitis.

In March, 1874, I was invited, through the courtesy of Dr. F. A. Emmons, to see Mrs. W., aged 45 years, resid-

ing at Hinsdale, in this State. She was the mother of three children, the youngest of whom was eleven years old. Two years before, the catamenial flow became greatly increased, and was so excessive in quantity and its duration so prolonged, that she was frequently obliged to lie in bed ten days at a time. The discharge was accompanied by pain of an expulsive character, and the frequent escape of large clots from the genitals. She had constant leucorrhœa, yellowish and glairy, during the intermenstrual periods. She became rapidly anemic, and suffered from loss of appetite and sleep.

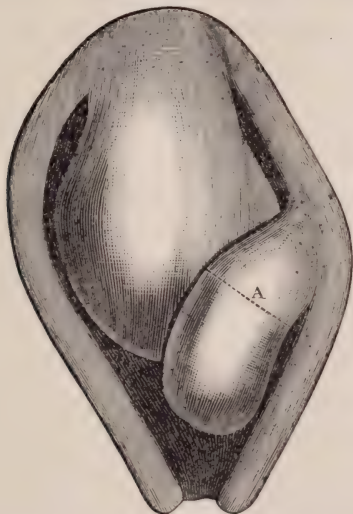
The uterus was found much enlarged, its fundus being felt two inches below the umbilicus, and somewhat higher on the right side than on the left. A metallic sound was introduced to the depth of six and a half inches, and one of a flexible material reached three-fourths of an inch farther. It was evident that the womb was occupied by a large tumor. Its character and place of attachment could only be ascertained by dilatation of the cervix. I advised that this be done by the use of sponge tents, and that trial be made of the hypodermic use of ergot. The sponge tent was not, I believe, successfully employed, and the differential diagnosis consequently not made. I learned, however, through Dr. Emmons, that the patient experienced much benefit from the ergot; pain and hæmorrhage were lessened, appetite and sleep were improved, and a considerable degree of strength returned. The remedy was continued, I think, seven or eight months. It was then omitted, and the symptoms soon reappeared with almost their former severity. I then saw the patient again in consultation with Dr. Emmons, and found the condition of the parts apparently the same as at the first examination, and advised an operation for the removal of the growth, provided removal were found possible with no more than ordinary risk. A fortnight later the patient came to the city for this purpose and was placed under my care.

On December 11th, with the assistance of Prof. De

Laskie Miller, I introduced one sponge tent and five laminaria tents. On the following day, again assisted by Prof. Miller, the tents were removed. Finding the internal os insufficiently dilated, we completed the dilatation by means of Molesworth's Dilator, with the greatest facility. Then, introducing the finger as far as possible into the cervix, a smooth, roundish body, as large as a hen's egg, was distinctly felt. Its attachment seemed high up, and was beyond the reach of the finger. It was decided at once to attempt its removal. Although the patient was admonished that the subsequent procedures would be painful, and perhaps prolonged, she resolutely refused to take any anæsthetic.

Operation.—The patient being drawn to the extreme end of a firm lounge, she was placed in the lithotomy position, and her limbs held by assistants. The perineum was drawn downward by means of a retractor. The anterior lip of the os uteri was then seized by a double-toothed vulsellum, by which the part was steadied and drawn downward. A larger and stronger vulsellum, guided by a finger previously introduced, was then passed into the cervix, and its hooked blades expanded over the polypus, which was grasped by them at a point as high up as the vulsellum could be passed—somewhat more than an inch and a half above its most depending part. The polypus was now drawn slowly and steadily down toward the vulva, this movement being aided by firm pressure over the hypogastrium. We finally succeeded in bringing the growth fairly into view just within the vulva, but still partially enclosed by the os uteri. The loop of a wire écraseur was now passed over the handles of the vulsellum and pushed by the finger beyond its toothed extremity and on to the polypus. It was found impossible to pass the loop very high up on the pedicle in consequence of some obstruction which was encountered. Having adjusted the loop as accurately and at as high a point as possible (see figure, point A), it was slowly tightened. In about five minutes

a portion, the size of a hen's egg, was cut through and brought away. The patient's strength was now well-nigh exhausted and stimulants were freely administered.



UTERUS containing two Fibrous Polypi—(one-fourth natural size.)

She rallied slowly but perfectly, and during the three following days was quite comfortable, being free from pain, and sleeping and eating tolerably well. There was, however, a constant and copious discharge of a bloody serous fluid so offensive in odor that frequent vaginal injections of carbolized water were necessary.

Dec. 16th. Patient had an attack of very severe expulsive pain, which was quieted by a full dose of morphia. On the following day Prof. Miller visited the patient in my stead. After his visit, expulsive pains again occurred and lasted about an hour. They were accompanied by nausea and chills.

Dec. 18th, 10 A. M. Passed a restless night, but without much pain. Introducing a finger to the vagina, I found a large, soft, decomposing mass as large as an orange, which I could trace into the cervical canal, now greatly relaxed and expanded. Without much difficulty I

passed the hand into the vagina, and then firmly holding the lower portion of the mass with a vulsellum, I managed to tear away, piece-meal, so much of it as had protruded from the os uteri. Introducing the hand to the vagina again, I was able to trace the broad connection of this, which proved to be a second polypus, to the fundus of the womb, but I could not succeed in detaching it, and, the patient becoming very weak, I was reluctantly obliged to cease my attempts to do so. The stump of the lesser polypus, which had been removed six days before, was found to be on the left side of the uterine body. After syringing the vagina thoroughly with warm carbolized water, I gave a hypodermic injection of half a grain of sulph. morph.

8.30 P. M. Patient very pale, and greatly exhausted. Had vomited several times. Pain over hypogastric region, and slight tympanites; pulse, 140, small and weak; had not been able to urinate since morning. Emptied the bladder, and ordered iced champagne frequently; also to have enemata of beef essence and whisky every three hours.

Dec. 19th, 10 A. M. Patient pale and haggard; slept very little during the night; pulse 140, very feeble; tongue dry and dark; abdomen tense and tender. Introduced catheter; to continue beef and whisky enemata.

7 P. M. Prof. Miller saw the patient with me. She seemed much the same as in the morning, although the tongue was moist, and she expressed herself as feeling better. An examination discovered the remainder of the polypus widely distending the os uteri. The patient's exhaustion was so great, however, that any attempt at removal was deemed inadvisable.

This was the last time I saw the patient alive. I was confined to bed by illness the two following days, and Prof. Miller kindly visited her for me. She continued to sink, and expired at half past twelve on the 21st.

CASE III. *Intra-Uterine Polypi Complicated with Fissure of the Anus—Removal of a Fibrous Polypus and Several Cystic Polypi.*

Mrs. B., aged 35 years, consulted me Nov. 12th. She had been married thirteen years; had an abortion at two and a half months in the first year of her marriage, and had not been pregnant since. Menstruation, which began at the age of fourteen, was always painful and rather profuse. Within the past few years the quantity of the discharge has been much greater than before, and now habitually lasts from eight to ten days. Has always since puberty had more or less leucorrhœa; this, too, has been more copious within the last two or three years. It is thick, glairy, sometimes tinged with blood, and, usually, offensive in odor. She has been under the care of a number of physicians, most of whom have treated her for "ulceration" or "displacement," some of them without making a vaginal examination. Her appetite is good, she sleeps well, and her general health seems not much impaired. Her bowels are open daily, but defecation is attended and followed by pain which lasts several hours.

On examination, I found the uterus rather low in the pelvis, retroverted and slightly flexed. The vaginal portion was enlarged and the os partially eroded but not patulous. The sound was readily passed to the fundus, and indicated a depth of two and three-fourths inches. Its passage caused no pain, but its withdrawal was followed by bleeding. On the anterior verge of the anus there was a small condylomatous growth which the patient had always regarded as a hæmorrhoid; extending inward from it was an angry-looking fissure about three-fourths of an inch long, and directly opposite was another of the same character but of smaller size.

Nov. 16th. The patient having been thoroughly purged the previous day, I introduced a laminaria tent to the cervix, and directed the patient to remain in bed and to use a diet exclusively of milk porridge.

Nov. 17th. The patient having been fully etherized by Dr. D. A. K. Steele, I removed the tent, and was able, by using some force, to pass the finger into the uterine cavity. The interior of the cervix was fairly studded with projecting masses, the largest not exceeding a pea in size. They were non-pedunculated, smooth and somewhat flattened by the pressure of the tent. They were evidently cystic polypi, and occupied the lower half of the cervical canal. Above these, attached to the left side of the cervix by a broad base, was a larger growth, about the size of a chestnut.

The hips of the patient, who was on her back, were brought beyond the end of the table, and the lower extremities supported by assistants. A vaginal retractor was introduced and the os uteri readily brought into view. Seizing the anterior lip with a vulsellum, the uterus was drawn down to the vulva and the retractor withdrawn. A curette was now passed into the cervical canal, and, by its aid, all the polypi were removed in a few minutes. Very little hæmorrhage attended the operation. The interior of the womb having been cleansed of blood, was thoroughly swabbed with strong nitric acid, and the cervix having been released, a ball of cotton wool, saturated with glycerine, was placed against the os and pushed up into the vagina. The fissured anus was treated by forcible dilatation of the sphincter.

The larger polypus was distinctly fibrous in character.

Nov. 20th. Thus far the condition of the patient has been quite satisfactory. Without the use of any anodyne she has slept well every night. Her bowels were opened naturally on the fourth day without any pain whatever. There is an offensive bloody discharge proceeding from the genitals, caused by the separation of the nitric acid slough. The after-treatment has consisted of rest in bed, a diet of milk porridge, and a vaginal injection of warm carbolized water, used three or four times a day.

The medical treatment of polypus does not properly come within the scope of this paper; but there is one

medicine, to the efficacy of which I desire to bear testimony. I allude to ergot. Its use is especially indicated in cases where growths of fibrous character are passing from the condition of submucous tumor to that of polypus; and also in cases where polypi of any kind have come to press against, and do not quite pass through the os uteri. In these cases the ergot, by inducing firm contraction of the uterine walls, forces the growth downward; it becomes more quickly and decidedly pedunculated, and consequently more accessible to radical treatment. At the same time it is the most efficient agent under these circumstances in checking the hæmorrhage. Prof. Byford has informed me that it has been his custom for many years to rely chiefly upon this drug for the purposes mentioned.

DID HE RECEIVE HIS DIPLOMA FROM PHILADELPHIA?—The *Lyon Médical* reports the arrival and performances in that city of one “Doctor Bribosia, a graduate of a foreign university.” He evidently belongs to that peripatetic class whose visitations should be viewed as a calamity with which the grasshopper plague is not to be compared.

Here are some of the achievements of another of these charlatans, described in *l'Année Médicale du Calvados*:

A virgin, fifteen years old and consumptive, was in despair in consequence of her amenorrhœa. She was “deflowered” by the application of a pessary, when an abundant flow of blood was induced, which was soon followed by death.

Another virgin, sixteen years old, was submitted to the same treatment for relief of leucorrhœa due to chlorosis.

A poor old man had a hernia, and had worn out his truss supplied by a physician. The charlatan applied an apparatus, and, in eight days, the patient died of gangrene of the scrotum.

Clinics.

CHICAGO MEDICAL COLLEGE.

Medical Clinic by PROF. N. S. DAVIS, February 5, 1876.

HEPATIC DISEASE, WITH JAUNDICE.

CASE I. A laboring man, about 30 years old, first presented himself at the clinic one week since, when his history was briefly stated as follows: About two years before, while actively engaged in physical exercise, he drank freely of cold water, and was soon attacked with severe pain in the epigastrium, which continued for hours, and was followed by some tenderness for several days. Similar attacks of pain recurred at intervals of a few weeks, generally coming on suddenly, and after a few hours, ceasing with equal suddenness, but leaving a more permanent sense of soreness in the epigastrium and some derangement of digestion, until six or eight months had passed. The severe paroxysms of pain then ceased, and the patient gradually became jaundiced, with a constant feeling of heaviness in the epigastric region, increased by taking food, and accompanied by impairment of appetite, general feeling of weakness, and a moderate loss of flesh. When he presented himself at the clinic last week, all these symptoms were present in a marked degree. The skin and eyes were colored deep yellow; the urine was rather scanty, and of a dark, yellowish brown color; tongue furred; pulse soft, but natural in frequency; temperature natural; bowels loose, to the extent of three or four passages a day, with some tenesmus, and more or less gaseous eructations after taking food. The stools were white or clay colored. For several months past, the patient had been much annoyed, especially during the nights, by a papular eruption upon the skin, accompanied by severe itching. A physical examination of the chest and abdomen

revealed no positive signs of disease except in the epigastrium. There was no apparent enlargement of either hypochondriac region, and only the natural area of dullness over the right lobe of the liver. But directly over the sulcus dividing the left from the right lobe of this organ, a hard body was felt projecting downward two inches below the margin of the ribs, and extending entirely across the epigastrium, becoming lost under the margin of the ribs of the left side. The lower thin margin of this swelling could be easily traced with the fingers, and by percussion. Its size, shape, and position, were sufficient to identify it as an enlarged condition of the left lobe of the liver.

From the history of the case and the existing symptoms, the lecturer inferred that the early attacks of sudden and severe pain in the upper part of the abdomen, were probably caused by the passage of biliary calculi through the hepatic duct, accompanied and followed by some degree of inflammation in the membrane lining the ducts, and extending into the left lobe of the liver. Such inflammation continuing in a chronic form would induce sufficient thickening of the membrane to cause the continuous obstruction to the flow of the bile, and consequently the protracted jaundice, with slow enlargement of the diseased portion of the liver. This view of the case was strengthened by the manifest irritation of the mucous membrane of the intestines, as indicated by the colicky pains and moderate diarrhœa, as well as by the heavy, sick feeling after taking any kind of food.

The lecturer stated that impaction of the calculi in the gall bladder, too large to enter into the ducts, sometimes led to long continued jaundice and more or less distress in the epigastrium. In such cases, however, the stools seldom become entirely white or clay-colored, because some bile will continue to discharge through that part of the duct not directly connected with the gall-bladder; and the latter can generally, in lean subjects,

be felt with the fingers projecting below the margin of the liver at the sulcus. This is not the case here. The principal question of doubt admitted by the lecturer in this case was, whether the enlargement of the left lobe of the liver was owing to the chronic inflammation or to cancerous or tubercular disease.

The duration of the patient's sickness, with the absence of any well marked general emaciation or special cachexia, strongly countenanced the opinion that it was of inflammatory origin. The existing diarrhœa and griping pains may have been induced by the too free use of drastic cathartics which are often resorted to in such cases with the idea of arousing the action of the liver,—a practice characterized by the lecturer as very injurious, and resulting from the failure to distinguish between deficient hepatic secretion and obstructions in the hepatic duct preventing the secretion from escaping through its natural channel. As there was in the existing aspect of the case, plain evidences of chronic inflammation in the mucous membrane, both of the intestines and hepatic ducts, with a probable excess of cholesterine in the bile, the first object of treatment should be to remove these morbid conditions. For improving the mucous membranes the patient was directed to take a teaspoonful of the following solution before each meal and at bed time: *R.* Acid. Carbol. grs. viij; Glycerinæ pur., $\bar{3}$ ss.; Tinct. Gelsemin., $\bar{3}$ ss.; Camph. Tinct. Opii, $\bar{3}$ ij; Aquæ, $\bar{3}$ ij. Mix.

To change the quality of the bile he was to take five minims of nitric acid, in a wine-glass full of sweetened water after each meal. The diet was to be restricted mostly to milk and farinaceous articles.

He has now been following this treatment one week, and his stomach is less nauseated; bowels move only once a day, passages consistent, and the patient says, slightly yellow. There is less tenderness over the epigastrium, and more appetite. In all other respects the symptoms remain the same as above. The lecturer remarked

that the same treatment should continue another week. If during that time the mucous membranes of the stomach and intestines remained free from irritation, and the enlargement of the left lobe of the liver remained unchanged, something with greater alterative effect should be substituted in the place of the carbolic acid mixture.

The following was suggested as one of the most efficient alteratives for reducing chronic enlargement of the liver, whenever it was well borne by the stomach : $\mathcal{R}$. Ammon. Hydrochlor., 3 iij ; Hydrarg. Bichlorid, gr. j ; Conii Fl. Ext., 3 iv ; Glycyrrhizæ Syr. 3 iij ss . Mix. A teaspoonful three or four times daily.

A SIMPLE TEST FOR ASCERTAINING THE PRESENCE OF BLOOD IN LIQUIDS OR IN CLOTH.—For physicians and clinical instructors, the following method of discovering the presence of blood may be useful, especially in the examination of urine ; it combines simplicity with absolute certainty : Mix in a test-tube two cubic centimetres of *tincture of guaiac* with the equal volume of *oil of turpentine*, and then add a few drops of the urine which is to be examined. If it contains any blood, even in minutest quantity, the whole mixture at once shows a more or less intensely blue color, sometimes a deep indigo, while this coloration is produced neither by normal urine nor by urine containing albumen or pus. If you wish to ascertain whether stains in linen, wood, etc., contain blood, you proceed this way : Dissolve five grammes of guaiac in 100 cubic centim. of absolute alcohol and filter the solution ; then mix five cubic centim. of this solution with the same volume of rectified oil of turpentine, and put into this mixture the small piece of linen, wood, etc., the suspicious stains of which were previously treated with warm diluted acetic acid. The presence of blood will at once show itself by a blue color.

Summary of Progress in the Medical Sciences.

I. PATHOLOGY AND PRACTICAL MEDICINE.

1. *On the Formation of Pigment in Melanotic Sarcoma.* GUSSENBAUER. (*Virch. Arch.; Centralbl. d. Chir.*, 1876, No. 1.)

The pigment in melanotic tumors is formed at the place where it is found, but it is not derived directly from the circulating blood, nor is it the product of a specific action of the cells. This theory is sustained by these three constant symptoms: 1. The coloring matter is irregularly distributed in the melanotic growths; the pigmented portions exhibit a great variety of shades; and again, we often find an entirely colorless portion adjoining one intensely pigmented. Now the cells which constitute these tumors being all alike, and their nutritive fluid being the same, there is no plausible reason why some cells should take up or form a coloring matter while others should not. 2. The pigmented cells follow the course of the blood-vessels, and are arranged in network which closely imitates the net of the capillaries of the organ in which the melanotic tumor originated. 3. The pigmentation is always preceded by the thrombosis of blood-vessels in the circumference of the growing tumor, and the red corpuscles stored up in these thrombi, furnish the coloring matter to the neighboring cells.

According to G., the process of pigmentation takes place in this manner: Wherever pigment is found, there has first been an engorged state of the smallest blood-vessels. This condition causes a dilatation of these vessels, and also a stagnation of the blood (stasis). The stasis leads finally to a coagulation of the blood (thrombosis); but before this occurs the hæmatine has left the red cells of the stagnating blood, and, dissolved in the serum, it passes through the walls of the vessels to impregnate the neighboring parenchyma of the tumor, where it is absorbed by the cells and consolidated to a granular matter.

2. *Obliteration of the Aorta.* LÜTTICH. (*Arch. d. Heilkunde; Centralbl. d. Chir.*, 1876, No. 2.)

A healthy young man, aged 26, died suddenly. The post-mortem exhibited a dissecting aneurism of the ascending aorta, which, greatly dilated, showed a few atheromatous patches of its walls. The descending portion of the arch of the aorta terminated in a cul-de-sac about one inch below the origin of the left subclavian artery, and it was connected by a strong fibrous band, half an inch in length, with the blind upper end of the thoracic aorta. The obliterated ductus arteriosus passed uninterruptedly over into the fibrous band of the obliterated aorta. The innominate, the

left carotid and subclavian arteries were considerably dilated. The mammary and epigastric arteries showed an increase in calibre, while the thoracic aorta was rather small.

3. *Influence of Alcohol and Acids upon the Coagulation of Blood.* ORÉ.
(*Comptes rendus ; Centrabl. d. Chir.*, 1876, No. 3.)

It is well known that alcohol and acids cause the blood to coagulate. But as all experiments relating to this matter have been made on blood which, though freshly drawn from the animal, at the time of the trial was outside of the organism, Oré tried to answer the question whether the *circulating* blood also is coagulated by the introduction of alcohol or acids. He experimented on dogs, and made injections into the crural vein with the following solutions: (a.) Vinegar and water, aa j. (b.) Sulphuric acid, 2, 5; water, 45 parts. (c.) Phosphoric acid, 5; water, 100 parts. (d.) Nitric acid, 4 parts; water, 120 parts. (e.) Muriatic acid, 4 parts; water, 120 parts. (f.) Alcohol, 7, 5 parts; water, 75 parts; and in another case, alcohol, 16; water, 75 parts. After the injections with acids, the dogs exhibited a little dyspnœa, which, however, lasted but a few minutes. When alcohol was injected, the dogs became drowsy, but showed no difficulty in respiration. A few days after the experiment, the dogs were killed, and a careful autopsy was made, in order to find the thrombi or emboli, if there were any. But in all cases the most searching examination failed to discover any coagulation of the blood. From these experiments Oré drew the conclusion, that the alcohol and the acids do not cause any coagulation if introduced into the circulating blood, and that, therefore, many substances which are not soluble in water, but can be dissolved in alcohol or in acids, could be injected into the veins without the danger of producing thrombosis or embolism.

4. *Cure of Acute Rheumatism by Salicylic Acid.* (Boston Med. and Surg. Jour., February 10, 1876.)

The experiments of Prof. Traube (*Berlin Klinische Wochenschrift*) are here commented upon.

Fourteen cases of acute rheumatism were treated with the acid, and in all cases, within two days, all fever had gone, as well as the redness, swelling, and pain in the joints.

Dr. Stricker believes salicylic acid a specific for acute rheumatism, and that the results in these experiments were not simply coincidences. The acid should be the pure colorless crystals, and should be pulverized. The dose is seven to fifteen grains, and should be taken every hour until the affected joints can be moved without pain. As many as fifteen doses are usually required. The drug should be taken in wafers to protect the mouth. Increased perspiration, tinnitus aurium, deafness, and, rarely, slight mental exhilaration, are produced by the treatment.

5. *Cirrhosis of Liver in a Child.* Dr. T. D. GRIFFITHS. (*Med. Times and Gaz.*, December 18, 1875; *Mo. Abstract*, February, 1876.)

This was the case of a liver, presented to the London Pathological Society, from a female child of ten years. Dr. Griffiths was sure the child

had not been addicted to drink. He had had the case under careful observation for five years. The liver weighed fifteen ounces, and was hard and tough. On its surface, granulations were fully developed. It was accepted by all the members as a case of cirrhosis, or "gin-drinker's liver."

Dr. Murchison had seen a cirrhotic liver, from a child of nine years, who had been in the habit of drinking liquor freely.

Dr. R. W. Parker had seen a boy of nine with retracted liver and ascites. He had taken grog daily at dinner.

6. *The Pathology of Pneumonia.* Dr. J. DRESCHFELD. (*Lancet*, January 8, 1876; *Mo. Abstract*, February.)

From a number of experiments on rabbits, the conclusions are offered that—

1. By section of the vagi, and by injections into the lungs of nitrate of silver, an irritative inflammation is induced, similar to the acute catarrhal pneumonia in man.

2. This process consists, in the first stage, in active proliferation of the epithelial cells lining the alveoli, which become detached from the walls of the alveoli, increase in size, become granular, and, with multiplication of nuclei, produce new cells.

3. The capillaries about the alveoli become actively hyperæmic; the white corpuscles accumulate in them, and, on the detachment of the epithelium, migrate into the alveoli.

4. The epithelium, after the proliferation is completed, undergoes fatty degeneration.

This opinion is distinctive in ascribing much, in the causation of this process, to the epithelium. Dr. D. has examined many lungs with catarrhal pneumonia in children and adults, and lungs with lobular pneumonia near caseous products, and finds a close resemblance between the cells discovered and the proliferating epithelium above described.

7. *Functional Infrequency of the Pulse.* PROF. AUSTIN FLINT. (*American Practitioner*, Jan., 1876.)

Prof. Flint publishes the histories of six cases of marked infrequency of the pulse. The ages of the patients were respectively 20, 35, 32, 53, 46 and 43 years. The lowest points of infrequency reached were respectively 16, 40, 35, 26, 38 and 26 per minute. Of the five cases Flint himself had observed, the pulse in health was nearly or quite of a normal average in three; "it was presumably so in one case, and there is room for doubt in respect to this point in one case." In one case there was noted a cessation of the heart's action for sixteen and eighteen seconds. Intermittency occurred in one case, and irregularity in one.

The patients all recovered; in two of the cases, however, the pulse remained at 40 after other evidences of recovery. The author believes it possible for infrequency of pulse to occur as an acquired normal peculiarity, although rarely.

Of the six cases reported, in all but one the disorder of the heart was associated with "morbid cerebral disturbance." Two cases had epilepsy, with frequent epileptoid attacks. Two had mental excitability, to the extent of delirium. "In one case there was great mental and physical prostration, and gastric irritability, due apparently to cerebral disturbance." There was no organic lesion of the heart in the cases cited.

The causes of the cases were apparently as follows: Of one case, syphilitic disease; in one, the attack followed a violent fit of coughing, with spasm of the glottis; in one, the disorder occurred during convalescence from lobar pneumonia; exposure to cold and violent exercise preceded the attack in another; in one, the symptoms preceding the affection denoted malarial fever; and in the sixth case, over-ingestion and indigestion seemed to be causes.

In diagnosing this affection, Dr. F. thinks the first care should be to exclude normal infrequency, but he thinks any infrequency not normal the patient is likely to be aware of. If he is not conscious of such state when it exists, he thinks it probably normal. The second care should be to exclude organic heart lesion. Mitral lesion occasions infrequency of radial pulse, the quantity of blood by some contractions being too small to produce pulsation at the wrist. Fatty degeneration may produce the symptom under consideration. It did not exist in any of the cases detailed in the paper. Another error likely to occur is the mistaking for this a disorder characterized by a regular alternation of a strong ventricular systole with one so weak it produces no impression at the wrist. The pulse is notably infrequent in cases of intra-cranial affection, in some cases of jaundice and uræmia, and in the administration of well-known drugs.

It is believed the pathology of these cases depends on some derangement in the action of the pneumogastrics—probably an "abnormal increase in the restraining or inhibitory influence."

In the cases given, it is doubtful that the remedies employed were in any way specially efficacious. Alcohol had little or no effect in two cases treated with it; one treated awhile with bromide was not benefited, but taking strychnia, atropia and iron, and subsequently phosphorous, progressive improvement followed.

8. *Rupture of the Heart.* DR. R. E. VAN GIESEN. (*N. Y. Med. Jour.*, Feb., 1876.)

A man 65 years old had never been sick in his life. While suffering severe grief at the loss of a friend he was seized with sudden vertigo. Two days afterwards Dr. V. G. saw him in an attack of nausea and vomiting, with pain in the chest. During the evening of this day he was comfortable; at one o'clock in the morning he undertook to get out of bed with a spring, when he fell dead. It was found, *post mortem*, that all the viscera except the liver, heart and aorta were healthy. The liver was large and fatty; the right ventricle was thin, and at a point near the septum there was a rupture an inch long. The heart was fatty.

Dr. V. G. had witnessed the death of a gunner, who dropped dead with

heart rupture while reaching his hand for a chew of tobacco. The wall of the ventricle was as thin as tissue paper.

9. *Endemic of Pythogenic or Miasmatic-Infectious Pneumonia.* W. B. RODMAN, M.D. (*Am. Journal Med. Sc.*, January, 1876.)

There occurred in the Kentucky State Prison in 1874, 75 cases of ordinary pneumonia. The mortality was 8 per cent. From the latter part of February to July 1st, 1875, there occurred, beside several cases of ordinary pneumonia, 98 cases of a severe grade of disease which the writer calls, after Liebermeister, miasmatic-infectious pneumonia; of these cases 25 died.

This form of disease differs essentially from the common pneumonia, and is believed to be caused by "foul emanations from sewers, privies or drains, and also by men being crowded together in sleeping apartments insufficient in size and imperfectly ventilated."

At the time this epidemic occurred in the prison none was existing outside.

The cell-house of the prison seems to be miserably arranged as regards hygiene. There are six tiers of cells one above the other on each side of the house. The ventilation is bad; each cell contains only $170\frac{2}{3}$ cubic feet of air; of course the cells are closed by grated doors. There were about 700 prisoners, and many of the cells had to be occupied each by two men. "Every man goes to his cell with a night-bucket, intended to be used only in a case of emergency; but rather than wait their turn at the privy, 400 of these men will use their buckets in their cells at various times from dark until daylight." "The lowermost tier is comparatively free from any unpleasant odor, and here there is less sickness than in any other part of the cell-house." At the top, the stench is almost unbearable. Five-sixths of the cases of this infectious pneumonia came from the top tier of cells. Dr. R. believes they were caused by the bad air of the cell-house. He does not believe the disorder is local, but general with local manifestation. Men frequently died as by malignant poison when *post mortem* examination "revealed probably only one lobe hepatized."

When the pneumonia was very slight there was sometimes violent delirium. There was often slight icterus as shown by the eye. "The pneumonia itself, both as to physical signs and *post-mortem* appearances, closely resembled an ordinary pneumonia." "In many cases almost pure blood was expectorated in large quantities, or the sputa were of a dirty brownish-black." Few patients having these symptoms recovered. The urine was brownish-red and the liver was found, *post-mortem*, to be enlarged, congested, filled with dark, syrupy blood. The average temperature seldom ranged as high as in ordinary pneumonia, nor was the pulse very much accelerated. The disease was very treacherous, and after patients seemed convalescing they would be stricken down.

The cases were first treated with carbonate of ammonia. The mortality was frightful. The tr. ferri chl. and quinia were then used, and the death-rate rapidly grew less.

Dr. R. believes that this form of pneumonia arises from miasmatic influences. It is infectious but not contagious. While a zymotic disease, it resembles others of this order, as cholera and typhoid, only in being infectious. It has different clinical features from ordinary pneumonia. (The invasion is more sudden, and it is less apt to attack the lower portion of the lung.) The disease is not so easily arrested nor so amenable to treatment as the ordinary pneumonia; many of the cases make a slow and protracted recovery.

10. *Hysteria Simulating Progressive Locomotor Ataxia.* W. H. WEBB, M.D. (*Am. Jour. Med. Sci.*, Jan., 1876.)

A woman of 35 years, who had been married at 14½, and had borne eight children beside having several miscarriages, and who had always been healthy, became melancholic apparently from a domestic mental shock in the summer of 1873. This continued until Oct. 1, following, when she had sharp shooting pains all over the body, mostly in the back and limbs, with a sense of fullness in the throat and constant desire to vomit; she had also a feeling of constriction of the chest and abdomen. Her menses now ceased, her sufferings increased, and she had pain and a peculiar feeling in the womb. Pain over the whole body now became violent, and lasted two months. In June, 1874, her arms had become gradually paralyzed. The pains were now confined to the spine and lower limbs, and lasted "some months." Then her sight became affected, she saw black spots constantly and kept in a dark room. Nothing but anodynes relieved her pains and then only in large doses, often repeated. Afterward the "arms became jerking and the fingers somewhat stiffened, with loss of power in them." Paralysis of motion and sensation occurred in the lower extremities, and control of the vesical sphincter was lost for a number of days.

Oct. 17th, 1874, she was in bed where she had lain on her back for six months. Motion was wholly lost in the upper extremities. Motion in the lower limbs was perfect while in bed; when taken out of bed and supported on both sides, she would, in attempting to walk, throw her limbs in a quick and forcible manner; there was incoördination of motion; "her feet would not come down in the place she intended they should." There was loss of sensation in the limbs. She was anæmic and emaciated, but did not appear to suffer, although she claimed to. Her pulse was 90; temperature 100° F.; urine, sp. gr. 1020, containing albumen in small quantity. Her mind had been clear during her whole sickness and she had directed her household affairs constantly. The pain in the spinal column was increased on pressure, especially over the cervical and lumbar regions, but the increase was less, when her mind was diverted from her ailment. There was some swelling over her wrists and several joints of the fingers, the parts being frequently red and painful on pressure.

On the application of the "Guiffé battery" to the various muscles of the right arm no response was obtained, and but slight tingling was complained of. Applied to the left arm, only slight muscular contraction

occurred, but there was more sensation. She was given tr. ferri chloridi and acid muriat.; was thoroughly rubbed; taken out of the bed and made to walk daily. Soon she was given a carriage ride daily. By Jan. 25, 1875, she had much improved, and there was a slight return of menstruation. Feb. 13, she had three convulsions and two on the following day. She now rapidly improved, and had three regular menstruations.

By Sept. 18, she was as well as she ever was, save slight contortions of the dorsal and palmar aspects of both hands and slight contraction of her fingers.

11. *Intestinal Hæmorrhage in Typhoid Fever.* DR. TH. PLAGGE. (*Memorabilien*, xx, 11.)

The author has noticed the application of ice upon the abdomen, the administration of liq. ferri, alum, catechu, kino, tannic acid, acetate of lead, etc., to be very inefficient in hæmorrhages of the kind named above, and he is, therefore, very happy in having found a powerful and efficient remedy in ergot. His patient, a laborer, aged 32, was in the second week of typhoid fever; delirious; face flushed; tongue very dry and furred; involuntary dejections. During the night of Nov. 28, he had discharged almost a pint of pure blood, his face was pale, feet cold, pulse very feeble and frequent. He was ordered to take sherry and a mixture of extract of ergot with tincture of opium in cherry water. During that day he had three more bloody stools, but then the patient rallied and rapidly recovered.

12. *Revaccination during the Recent Epidemic of Variola in Cincinnati.* W. B. DAVIS, M.D. (*Boston Med. and Surg. Jour.*, Feb. 6, 1876.)

From Nov. 1st to Dec. 8th, 1875, and while an epidemic of variola was existing, Dr. D. revaccinated one hundred and fifty-two private patients, and fifty medical students. In 66 per cent. the revaccination was successful. In 43 per cent. the success was only partial; in 24 per cent. the vaccine disease was more or less severe. "One hundred and twenty-six persons had but one cicatrix each; of these 62 per cent. took the vaccine. Of those who had good, foveated scars, one each, 56 per cent. were successful; of those who had superficial scars, one each, 85 per cent.; of those who had distinct marks of variola and varioloid, 75 per cent.; of those who had two, three, four and six cicatrices, the number is not sufficiently large to warrant an opinion." So far as they go, "they indicate that numerous cicatrices do not give more protection than one."

In those in whom the vaccine disease is mentioned as having been "more or less severe," the disorder exactly resembled a primary vaccination.

Dr. Wm. Judkins had, during the same epidemic, revaccinated 85 cases. In 37, the effort was successful; in 48, it failed. Of the successful cases, "about half took mildly, the remainder severely." Of those vaccinated with humanized virus, 50 per cent. were successful; while of those in whom the animal virus was used, 30 per cent. were successful.

Dr. L. A. Querner had revaccinated 600 inmates of the Cincinnati Work-house with animal virus, and 67 per cent. were successful.

Dr. D. is surprised at the measure of success in these revaccinations, and concludes that—

1. Exposure to infection and epidemic influence increases the susceptibility of the system to the influence of vaccine virus.

2. Variola and varioloid are no more protective against variola than vaccination.

3. The cicatrix is not a measure of the protection afforded by the vaccination whence it resulted.

4. It is advisable to revaccinate upon every exposure to infection, unless it has been done recently with success.

5. Those who are successfully revaccinated are to some extent susceptible to the variolous influence.

II. SURGERY.

1. *Parenchymatous Injections.* DR. WILDE. (*Deutsche Zeitschrift f. Chir.*, VI. 3.)

The doctor gives the experience he had with injections of iodine and nitrate of silver. In regard to the solutions of iodine or tincture of iodine injected into the parenchyma of goitres, he can only confirm the happy results obtained by Lücke and others. Even the largest goitres disappeared in a comparatively short time; the patients did not exhibit any signs of iodine intoxication or of a dangerous reaction which sometimes has been noticed, from the rapid absorption of strumous matter.

The injections with solutions of nitrate of silver were found especially effective in tumors of a soft, cellular structure. In order to have a good success it is necessary that the lymphatic glands in the vicinity of the neoplasm and all internal organs should be still intact, that the tumor itself be well defined and penetrable by the injections all round its circumference, and that the growth should be thoroughly impregnated with the solutions. For it is very erroneous to expect any satisfaction from two or three injections, made into a tumor of the size of a fist. The solution used for the purpose, consists of one grain of nitrate of silver to one ounce of distilled water. To substantiate his remarks, Dr. W. reports the history of three cases, of which we select the third: S., aged over forty years, laborer, called on Dr. W. in the fall of 1872. He had an epithelial cancer of the left cheek, which extended from the intra-orbital foramen to the border of the lower jaw, and from the angle of the mouth to the anterior border of the ear. The neighboring lymphatic glands were not affected. The carcinomatous degeneration occupied the skin, the subcutaneous tissue and the superficial strata of the muscles, but the mucous lining of the cheek was not affected. The surface of the neoplasm

was covered by wart-like excrescences and its margin was rigid and elevated like a mound. The patient positively declining to submit to an operation, the doctor tried the effect of the parenchymatous injections with a solution of nitrate of silver. The carcinoma was accessible from every side and a thorough impregnation of it was practicable. Daily injections were made for ten days in succession; then the patient went home, to return from time to time as directed by the doctor. At his third visit, he was pronounced cured; the place of the carcinoma was occupied by a firm, smooth, cicatricial tissue. The patient has been examined several times since; no recidive has been yet discovered.

2. *Intra-Cranial Aneurism.* WM. E. HUMBLE, M.D. (*London Lancet*, Dec., 1875.)

The chief object of the author of this paper is to draw attention "to the importance of practicing auscultation of the head, more frequently than we are in the habit of doing." He cites the two recorded cases in which intra-cranial aneurism was diagnosed during life—one by Mr. Coe, and another by Mr. Jonathan Hutchinson. These cases, with the one related by Mr. Humble, lead one to the opinion that, at some time during the progress of the aneurism, the diagnosis of this disease may be made by auscultation.

3. *Case of Aortic Aneurism Successfully Treated by the Distal Ligature.* THOS. ANNANDALE, F.R.S.E. (*Canada Med. and Surg. Journal*, Jan., 1876; *British Med. Journal*.)

The patient was 62 years of age, and had suffered from symptoms of thoracic aneurism for about six months—symptoms that were steadily increasing in severity. On admission to the infirmary there was observed an aneurismal tumor, pulsating strongly and passing up from behind the clavicle and sterno-clavicular articulation into the neck, as far as the cricoid cartilage. The trachea was displaced towards the left side, and the inner half of the clavicle and its articulation with the sternum were pushed forward by the underlying tumor. The bruit, dullness on percussion, a constant irritating cough, pains shooting up to the head, want of sleep, and progressive emaciation, were the symptoms present. After one month of rest in bed and the use of iodide of potassium, sixty grains, daily, he left the hospital with his symptoms somewhat relieved. The improvement was, however, of short duration. The symptoms having grown more troublesome, the patient was re-admitted.

The cervical portions especially showed an increase in size. It had spread higher up, and laterally, so as to overlap the site of the subclavian artery. After a careful consideration of the circumstances of the case, and observing that pressure on the right carotid artery, immediately above the cervical portion of the tumor, very much diminished the aneurismal pulsation, it seemed a favorable opportunity for practicing distal ligation. The position of the aneurism did not permit the subclavian artery to be ligatured; but there was just sufficient room to secure the common carotid

above the cervical portion of the tumor. The ligation of the artery immediately under the ovoid-hyoid muscle was performed March 2nd, under the carbolic spray. The prepared catgut ligature was employed.

The immediate effect of the ligation was to almost stop the aneurismal pulsation, and to convert the strong pulsation into a kind of quivering motion. No local or constitutional disturbance followed the operation. The wound had healed on the 17th. The day after the operation the patient felt greatly relieved. He no longer himself felt the pulsation in the tumor, and the pains in his head and neck had disappeared. The pulsation in the aneurism was felt to be very feeble and the tumor itself was decidedly smaller.

Dec. 27th, his condition was as follows: General health good; no pain or other uneasiness; he could stoop freely without giddiness, and could go up and down stairs easily; the cervical portion was half an inch lower than before the operation; the tumor was much flatter and firmer; a very feeble pulsation could be felt; a bruit, less loud than formerly, could still be heard on all sides of the tumor. Mr. Annandale remarks that, although it can not be said that the aneurism was completely cured, there can be no doubt as to the great relief afforded by the operation. He sees in this case additional evidence in favor of distal ligation on suitable examples of otherwise incurable aneurisms.

The author of the paper has great faith in the use of iodide of potassium; and expresses the opinion that should a fair trial of this drug fail to give complete relief to the symptoms, the distal ligation of the carotid should be employed, provided the case be a suitable one for the operation. The test of the suitability of the case for operation being the effect which temporary pressure on the distal portion of the carotid has on the aneurismal pulsation, provided, of course, there be sufficient space to ligature the common carotid. Mr. Annandale and Mr. Holmes agree that operative interference should, in the first instance, be confined to the ligation of the carotid, ligation of the third part of the subclavian being resorted to if advisable, at a future stage of the progress of the case.

4. *Treatment of Fractures.* DR. SCHWAB. (*The Canada Medical Record*, December, 1875.)

Dr. Schwab (Wurzburg) has found albumen, as in the white of egg, to answer as well as plaster of Paris. In addition to the whites of six to eight eggs, there will be needed an old linen sheet, from which a bandage of Scultetus can be cut, a piece of pasteboard, which is always at hand in the cover of an old book, and a roller bandage, from three to four yards in length. The bandage of Scultetus and pasteboard are first saturated with the albumen, and the bandage carefully applied, allowing the edges to slightly overlap. This bandage should reach to the joints above and below the fracture. The pasteboard is then smoothly adjusted to the part, and secured with the roller. The limb is kept in proper position by means of small bandages, or cushions of straw. No *shortening*, or other deformity, ever followed. The author of this paper claims to have

used the method referred to for twelve years with *complete success*. He further believes, that with this bandage the fracture unites, and the mobility of the joint returns, much earlier than with *any* other dressing. This very gratifying result is *ascribed to the curative action of albumen*.

(We do not doubt that the method above mentioned *can* be made efficient. That it is convenient, none will deny. There are, however, no clinical facts to support the assertion, that fractures of the extremities can be managed by this means alone with "complete success," or that by it "no shortening ever followed;" or that any "curative action" can be ascribed to albumen, as contained in the bandage of Scultetus and paste-board.)

5. *Hydrocele Cured by Injections of Carbolic Acid*. DR. RAHN. (*Allg. Med. Zeitung*, 1875, No. 102.)

Prof. Hueter (Greifswald) has, of late, been using two per cent. solutions of carbolic acid, instead of the tincture of iodine, as an injection for hydrocele. After the liquid was withdrawn, he injected seven grammes of the above solution, and left it in the sac of the tunica vaginalis. No pain and very slight swelling followed such injections, and the patient was not obliged to lie in bed, while a radical cure was accomplished just as certainly as by the use of tincture of iodine.

Dr. R. could confirm these facts by the happy success he had in a case of hydrocele, which, in November, he treated with an injection of carbolic acid. Neither during nor after the operation, was there the slightest pain; indeed, the patient felt so well that he could not be induced by any means to remain in bed, and the next morning he walked in his garden. On the second day, with a well-fitting suspensory bandage, he went about his business as usual. On the fifth day, there was no swelling and no tenderness; in fact, no sign of a hydrocele; and this has since continued.

6. *The Hydrostatics of the Catheter*. DR. ROBERT SOMMERVILLE. (*Edinburgh Med. Jour.*; *Braithwaite's Retrospect*, Jan., 1876.)

The mechanical disadvantage to the bladder, of having to raise the urine four or five inches above its own level, is easily illustrated when the female bladder is being emptied with a flexible catheter. The urine runs freely enough if the nozzle of the catheter be kept down, but the stream is at once arrested if the end of the instrument be raised a few inches.

By using a very long, flexible catheter, and bending down the outer half of it so as to make the urine leave the instrument at as low a level as it enters it within the bladder, we balance the column which is obstructing the evacuation with one which facilitates it, and the only thing required of the bladder, in this case, is to overcome the friction of the urine against the interior of the tube. By bending down the end of the catheter still further, we convert it into a syphon, the long leg of which is external, and, the descending column of urine more than balancing the ascending one, the urine, having once begun to flow, is bound to go on.

running until the bladder is entirely empty. The urine no longer requires to be pressed out, it is drawn out.

All that is required to convert the ordinary metallic catheter into a syphon, is to have its external extremity end with a downward curve, and to slip on to it the end of an India rubber tube. The tube must be considerably longer than the catheter, in order that it may form the long leg, and the catheter the short leg, of the syphon. When, therefore, the catheter, with the tube thus attached to it, is introduced into the bladder distended with urine, and the external end is bent down towards the patient's bed, the first gush of urine fills both catheter and India-rubber tube, and flows out at the extremity of the latter. We may now allow the catheter to assume the position that the elasticity of the patient's tissues, uninterfered with, assigns to it. The external end of the catheter will spring up, yet the urine will continue to flow; for the syphon having once commenced to act, the emptying of the bladder will go on until the whole of what it contains is drawn off.

This proposed method of using the catheter as a syphon is very simple, very convenient, and very clean; it completely empties the bladder; it reduces the irritation of the mucous membrane by the catheter to the least possible degree, and it avoids entirely the temptation one often has, when the urine has ceased to flow, to raise the patient into an erect or semi-erect position—a proceeding never devoid of danger with a metallic catheter in the bladder.

7. *Recto-Urethral Fistula.* ED. J. BERMINGHAM. (*N. Y. Med. Jour.*, Feb., 1876.)

A young man, suffering from a "clap," noticed a dull pain in the perinæum, and in a couple of days the parts became so tender that he was obliged to take to his bed, and finally he could not pass water. An attempt to pass the catheter caused so much pain that the patient fainted; still the physician succeeded in drawing off the urine, but the next morning the patient noticed a profuse yellow discharge from the urethra, and had a stinging pain in the perinæum, greatly aggravated upon urinating. A few days later, he noticed, for the first time, that some faeces came through the urethra when he made water. An examination revealed no stricture, but a great tenderness in the perinæum, and in the rectum over the somewhat enlarged prostate; the sound caused great pain when passing the prostate; spasmodic contraction of the sphincter ani; no solution of continuity of rectum discoverable by finger, but an examination made by a speculum revealed a fistulous opening about an inch from the sphincter, into which a probe could be passed until it touched a sound that had been introduced into the urethra. The whole sinus was thrice cauterized by means of a silver probe coated with fused nitrate of silver; the sphincter ani was ruptured; opiate suppositories were given, and perfect rest ordered in the recumbent position. Under this treatment the patient completely recovered in three weeks.

III. GYNECOLOGY.

1. *Ovulation without Menstruation.* ST. GERMAIN. (*L'Union Médic. de Canada*, Dec., 1875.)

A woman married at 20, became pregnant in the early months of her married life, a few days after menstruation. She has since had eleven children, the last in her 45th year, having never menstruated throughout the entire period of 25 years.

She is a poor, hard-working woman, nervo-bilious temperament, small, but well-made, hips and shoulders broad, chest well developed, bright-eyed, and has rarely desired intercourse. She is now in her 78th year, and quite well.

2. *Some Points in Ovariectomy.* BENNETT. (*Med. Record*, Nov., 1875.)

The writer considers two points: 1st. Position. The patient is placed on the edge of a table, and turned over almost upon her face, supported by two assistants. The sacs are then punctured and emptied as they present themselves, aided by the force of gravity. 2d. Treatment of pedicle. The author prefers the silk ligature, left depending at the bottom of the external incision. Five out of six patients thus treated, recovered—one case terminated fatally, from adherent and immovable sac. The clamp is objected to, because the pedicle is often short; tympanitis produces painful tension; vomiting and coughing produce a violent jerking, and may tear out the clamp, or induce inflammatory complications. It may also prevent cicatrization of the wound. The author's last operation was for removal of a multilocular tumor, weighing sixty or seventy pounds. The pedicle was tied in three parts, and in ten days the ligatures came away. In four weeks the patient was busied in her kitchen.

The writer considers the ligature the method of all others for securing the pedicle, which should be tied in two or three parts, the ligature not large, and drawn very tightly.

3. *Ovarian Disease, with Cases.* BAILEY. (*Detroit Review of Med.*, January, 1876.)

The author reports a fatal case of ovariectomy from peritonitis. The tumor was multilocular, irregular, and flattened, as large as a placenta, filled with gelatinous substance of the consistence of the white of an egg. Upon this enlargement were flattened scales of calcareous matter. The pedicle was broad, the morbid formation adherent; and no attempt at removal was made.

Post mortem: Pus, tubercles and extensive adhesions were found.

In a second case, "something gave way" in the neighborhood of a large, well-defined tumor, in the left ovarian region, which at once seemed to become loose, rolling from side to side as she turned in bed. The abdominal cavity began to fill with a liquid. Death rapidly supervened.

4. *Pelvic Hæmatocele.* MORRILL. (*Bost. Med. and Surg. Jour.*, December, 1875.)

A woman, 24 years old, who had had one child and no miscarriages, suffered from slight leucorrhœa, and finally had sudden cessation of catamenia, followed by intense abdominal pain. Anodynes gave but partial relief, with some return of the menstrual discharge, when collapse occurred, with weak, intermittent pulse, sighing respiration, cold extremities, and a death-like pallor. Iron, ergot and tampons were used, and finally, uterine dilatation with tents, so that the finger could explore the fundus. No positive results.

Thirty-three days after the unmistakable signs of internal hæmorrhage, a rounded tumor, as large as an apple, appeared in the left iliac region, solid and dull on percussion. An elastic, egg-shaped swelling, its long diameter lateral, was detected behind the cervix. The sound, entered four and one-half inches, could be felt by the hand on the tumor, when the handle was depressed.

The tumor finally occupied the vagina. After exploring with the needle, a pint of bloody serum with clots was evacuated through an incision. Pus appeared later, from the wound, which was kept open by dilatation, and carbolic acid and permanganate of potash solutions were used as injections. The cure was rapid.

5. *Pelvic Hæmatocele and Pelvic Cellulitis.* BARKER, FORDYCE. (*Rich. and Louisville Med. Jour.*, January, 1876.)

Both occur in the pelvic cavity, immediately in contact with the uterus; both develop a tumor; both excite moderate pelvic peritonitis resulting in adhesions; both originate in predisposing disturbance of uterus or appendages.

Hæmatocele is associated with catamenial disturbance and abortion, never parturition. Cellulitis is frequently a disease of the puerperal period, or may follow abortion or inflammation of pelvic viscera. Hæmatocele frequently is ushered in by, or attends, uterine hæmorrhage; cellulitis rarely.

In hæmatocele, the tumor forms rapidly (in a few hours); for cellulitis, days are required.

In the former, the tumor is at first yielding and elastic, and indurates slowly with age; in the latter it is hard at first, and slowly softens. In the former, the tumor begins the disease; in the latter, it results from antecedent inflammation. In the former, the tumor is distinct from the uterus, of considerable volume, and displaces the womb laterally and anteriorly, the os backward; in the latter, the tumor belongs to the uterus, on one side or the other, and does not markedly displace it.

Finally, hæmatocele is ushered in by symptoms of nervous prostration and shock, and followed by those which attend pelvic and general peritonitis. Cellulitis begins with the general and local symptoms of inflammation.

6. *Peri-Uterine Hæmatocele Consecutive to Abortion.* SCHRANK. (*Médec. Chir. Centralblatt*, July, 1875.)

A woman, three months pregnant, lost blood after falling down stairs. Her physician discovered vacuity of the uterus, and the os dilated sufficiently to admit the extremity of the finger. Iced injections, ergot, and cold compresses upon the abdominal surface, were employed. Clots and débris of membrane were then expelled.

Two days after, the patient became quite pale, and fainted on making the slightest movement. Numerous clots were found in the vagina; and an abdominal tumor was discovered, voluminous, but neither painful nor tender. This was evidently unconnected with the uterus.

The escape of blood into the abdominal cavity was thought to be due to disease of the Fallopian tubes, and Dr. Schrank thinks that only in such cases, apart from, or in connection with, ovarian disease, is it possible for uterine secretions or injected fluids to traverse the canal.

7. *Peri-Uterine Adeno-Lymphangitis.* GUÉRIN. (*La France Médicale*, January 1, 1876.)

The author describes fully an exceedingly interesting case of peri-uterine inflammation of glands, lighted up by a septicæmic condition, probably resulting from induced abortion. Its features were those of a phlegmon of the large ligament. Metastatic abscesses occurred in the lungs, and pus was discovered in the pelvic veins.

8. *Rupture of Uterine Cyst, with Death from Hæmorrhage.* ANGEL. (*Charlestown Med. and Surg. Jour.*, January, 1876)

A colored man, in attempting to effect intercourse with his wife, was resisted, and, in making forcible efforts, placed his knee upon her abdomen. She at once placed her hand upon her stomach, and complained of acute pain. Prostration, collapse and death occurred before midnight, without the attendance of a physician.

Post mortem: The woman seemed to be about 35 years old. There were about three quarts of clotted blood in the lower part of the abdominal cavity, containing a foetus in the third or fourth month, completely surrounded by membranes. The pregnancy had evidently been intra-mural at the left utero-fallopian juncture. The uterine cavity was empty, and did not communicate with the external rent, a muscular partition intervening. A well-marked cyst existed at this point, which did not communicate with the uterine cavity. Its external wall was thinned.

9. *Sarcoma Uteri.* SIMPSON, A. R. (*Ed. Med. Jour.*, January, 1876.)

The author gives details of four interesting cases. From these it appears that hæmorrhage, leucorrhœal discharge, destruction of the reproductive function, disturbance of function of neighboring organs, general cachexia, and no marked degree of pain, are the usual symptoms. Nulliparity does not seem to favor sarcomatous development.

The uterine enlargement is moderate, varying according to the size of the morbid mass, rarely so large as to form an abdominal tumor, unless there is a myo-sarcoma, or fibroid undergoing sarcomatous degeneration. When growing from the cervix or inverted uterus, a polypoidal body occupies the vagina. The enlarged uterus is freely movable, when there is not pelvic impaction or inflammatory adhesions. These are rare. The sound detects an increase in the size of the cavity, and a foreign body which readily bleeds. Tents are needful for exact diagnosis.

"My own case confirms the general verdict that we have here to do with a form of disease which, though it is not the cause of such intense suffering nor of such rapid constitutional deterioration, nor of such speedy death, as cancer, yet has a vicious tendency to recur after apparent complete removal, and to lead, sooner or later, to a fatal issue." In early and polypoidal cases, removal, repeated if necessary, is recommended, with the *écraseur* or galvano-caustic wire. Sometimes from brittleness, it is brought away piecemeal, with the curette, fenestrated like Récamier's, or cup-shaped like Simon's. In any case, it is desirable to lessen the immediate hæmorrhage by free application of perchloride of iron and hypodermic injection of ergotine. The profuse and sometimes fœtid discharge can be controlled by astringent and disinfectant injections; and the patient's general health will be kept up by a generous diet and the administration of tonic remedies.

10. *Tolerance of Sedatives in Malignant Uterine Disease.* DAY. (*Obstet. Jour. of Great Britain and Ireland*, January, 1876.)

(A.) A woman fifty-five years old, never pregnant, and having enjoyed good health up to the present illness, suffered from left inguinal pain for one year, (preventing sleep,) and a variable amount of uterine hæmorrhage. Menstruation had ceased two years before, but recurred and had never entirely disappeared since. The uterus was freely movable, and the os small. Immediately above the neck, which was well defined, the body dilated abruptly and involved the fundus. No enlargement was felt above the pubes. The swelling, which was rather hard and cartilaginous, occupied the upper and left side of the vagina. There was no ulceration nor vaginitis. There was much depression, weak pulse, face thin and haggard. A pessary, containing one-eighth of a grain of atropine, was ordered to be introduced into the vagina nightly. Glycerine on cotton wool was applied to the os in the day-time to relieve congestion. Bromide of potassium and quinine were given internally, and she was advised to remain in bed for a few days.

From the fifteenth of June, 1873, to the 10th of March, 1874, the date of her death, this patient suffered from intense, recurring pain. Fourteen hypodermic injections, each averaging three grains of the acetate of morphia, with one-third of a grain of atropine, were given from October 25 to December 30, 1874. From January 1 to January 22, 1875, two, and sometimes three injections were used daily, of the same strength. From January 22 to March 10, two and sometimes three in-

jections were also daily used, each averaging five grains of morphia and half a grain of atropine.

These large injections never caused vomiting nor active cerebral disturbance. Full narcotism without danger to life was induced by the largest doses, no irritation following the punctures.

The writer cites one case where the introduction of one-sixth of a grain of the acetate of morphia under the skin of a lady forty years of age, induced sickness, faintness, disturbance of vision, and general tremor. It is important to combine atropine with the morphia, and to inject slowly and horizontally, avoiding veins.

(B.) In the second case, fully reported, one drachm of a solution of bimeconate of morphia failed to relieve, but half this dose, with 30 grains of chloral hydrate, never failed to induce sleep.

The author's conclusions are the result of a very careful and discriminating consideration of the subject of pain, as produced by malignant uterine disease in women of different constitutions and temperaments.

11. *Unusual Terminations of Uterine Fibroids.* PARVIN. (*American Practitioner*, November, 1875.)

Two cases are cited. In the first, a woman, thirty-eight years of age, childless after twenty years of married life, had ergot injected hypodermically for uterine fibroids, from which she had suffered four years. After its discontinuance, metrorrhagia returned; the vagina and os were tamponed, the cervix divided, sponge tents were employed, and intra-uterine astringents applied. Finally, a stream of blood followed the withdrawal of two tents. An injection of one part of the muriated tincture of iron, with ten of warm water, was used freely to wash out the uterus, whose upper margin was slightly above a horizontal line at the umbilicus. The hæmorrhage was arrested, but temporary collapse was followed by death in forty-eight hours, from exhaustion.

In the second case, a woman thirty years old, had been married twelve years with two children, and one miscarriage. Leucorrhœa with profuse and irregular menses occurred four years previously, coincidently with "a lump" in the hypogastrium. There was emaciation, uterine pain, and hypogastric tenderness. A submucous uterine fibroid was established in the anterior wall, the uterine cavity measuring four inches and a half. While improving under general hygienic treatment, a purulent and shreddy discharge occurred, in which fibrous tissue was detected by the microscope. There has been great improvement in all respects since.

12. *Unusual Uterine Hæmorrhages.* BARKER, FORDYCE. (*N. Y. Med. Record*, January 29, 1876.)

The Professor, in some interesting remarks before the N. Y. Academy of Medicine, sums up the unusual causes of menorrhagia and metrorrhagia as follows: hyperæmia of the uterus due to perimetritic exudation (exudative adhesions binding down the womb); acute ovaritis; ovarian dysmenorrhœa; acute ovarian displacements (prolapse from effort, shock,

constipation); conditions of organs remote from uterus (obstructed portal, cardiac, renal circulation); disturbed cerebration from emotional causes; malarial toxæmia; exanthematous disease; rapidly developed obesity (uterine plethora); chlorotic menorrhagia; climacteric menorrhagia.

In the last named forms, B. uses, three times daily, rectal suppositories of cacao butter, and Squibbs' aqueous extract of ergot, for a week prior to menstruation. If the latter is prolonged, he introduces well into the cavity of the uterus, iodoform cylinders, made thus: R. Iodoform, dr. ijss.; Gum. Tragacanth, grs. xv; Mucil., q. s. M. Make ten cylinders, each 1½ inches long.

13. *Pedunculated Uterine Fibroid Tumor—Pregnancy—Peritonitis—Death.*
RODDICK. (*Canada Med. and Surg. Journal*, December, 1875.)

A healthy-looking woman, aged 29 years, married seven years without occurrence of pregnancy; ceased menstruating for four months, and had mammary pain with morning sickness. She consulted her physician for an excruciating pain in the right inguinal region, which had for four months seized her without warning, compelling her at once to assume a sitting or recumbent position, and passing off in from three to five minutes, leaving her weak and prostrated. Recently, also, she had noticed a lump in her right groin. There had been also some constipation and enuresis, but no other outward symptoms.

On examination, the uterus was found to be enlarged, but not to the extent of the fourth month of pregnancy. A firm, movable mass of the size of a large hen's egg, longer in its vertical than in its horizontal diameter, was discovered somewhat higher than the right ovary. Pressure elicited considerable lancinating pain. A vaginal examination was refused.

In six days, intense nocturnal pain and incessant vomiting occurred. The features were pinched and anxious; pulse, 112 and wiry; tongue, furred; general abdominal tenderness and pain in the right groin. The tumor was unchanged. Vaginal examination revealed the presence of a fœtus in utero, without digital perception of the tumor, which, however, participated in the forced movements of the womb.

Morphia, calomel and bismuth, with turpentine and poultices externally, produced relief for twelve hours, but the symptoms then returned. A blister followed by poultices was applied to the right side, and a solution of hydrocyanic acid, morphia and liquid bismuth, was substituted for the powders. The pulse was 120, small but regular, on the next day; temperature, 101.5°. A simple enema was given for the constipation of three days. The vomiting became less constant, and the pain less severe; but the general condition seemed more unfavorable. A considerable amount of blood was withdrawn by the application of a dozen leeches to the abdomen, when the latter was covered with a poultice. The pulse steadily rose to 130, the temperature to 102½, and the respirations became hurried. Some iced champagne was given for relief of the vomiting.

The next day the patient had stercoraceous vomiting, with a small, irregular pulse of 140, subicteroid hue of skin, tongue deeply covered

with yellow fur, pinched features and slight delirium. Death occurred on the ensuing evening, the foetus with its investitures being expelled during the death struggle.

There was found at the autopsy, universal peritoneal injection, and partial intestinal congestion. The large, flaccid uterus had not contracted after the expulsion of its contents. Growing from the right side of the fundus, and attached to it by a peduncle about three-fourths of an inch in length, was a fibroid tumor of the size of a large hen's egg, the peritoneum in its vicinity being more injected than elsewhere—in places appearing almost gangrenous.

The following points of interest are discussed: 1. Could the fibroid growth, originally imbedded in the uterine wall, have prevented impregnation for nearly eight years? 2. Did it produce that peculiar catarrhal condition of the uterine mucous membrane so fatal to impregnation? 3. Are Barnes, Turner and others to be accepted, in teaching that pedunculated fibroid tumors are not to be regarded as serious complications of pregnancy?

14. *Inversion of Uterus, relieved by White's Method.* COXE. (*N. Y. Med. Record*, December, 1875.)

A woman, 25 years old, married at 18, shortly after her confinement, was pale and in great pain, with a pulse of 180 and feeble. She soon rallied, but subsequently became much reduced, and was subject to frequent hæmorrhages. A tumor in the vagina, supposed to be a uterine fibroid, proved to be an inverted uterus.

White prepared her for operative procedure, with iron, quinine, generous diet, perfect rest, and ordered complete evacuation of the rectum. A ball of cotton cloth, saturated with horridly offensive putrid blood and discharge was, when withdrawn from the vagina, followed by the evacuation of a quantity of black, tarry fluid, of "infernal stench." This was a tampon a fortnight old, which had, for that time, bathed the uterus in a highly septic fluid. The vagina was at once cleansed.

By pushing up the tumor, White could feel plainly the inverted os through the relaxed and thin abdominal walls. Involution had not been interfered with.

The right hand, armed with a large rectal bougie, was passed into the vagina, the left making abdominal counter pressure. Partly by pressure, and partly by manipulation, the uterine walls soon began to yield—the patient being anæsthetized—and reduction was effected in six minutes. The "egg-beater" repositor was also used. The cure was complete.

15. *Uterine Asthma.* WARING, CURRAN. (*Practitioner*, December, 1875.)

Women with fibroid tumors of the uterus, or its appendages, appear to suffer more severely from asthma, than those who have any other form of tumor, the paroxysms being excessive and prolonged during the catamenial period. In three cases no evidence of the asthmatic complication

appeared, until a day or two before menstruation occurred, and when the latter ceased, the asthma yielded without treatment. One lady, tapped five times for ovarian dropsy, is always thus affected when suffering from her periodic discharge, but the severity of the paroxysms is nothing compared to that occurring in patients with smaller and solid tumors. A woman, twice married without children, had a fibrous tumor of the uterus not much larger than an orange for fifteen years, without enlargement or pain, but at forty-five her periods became irregular, and asthma soon developed in an aggravated form. This case, as in the majority of similar instances, resisted the ordinary treatment of asthma.

In another patient, a uterine tumor occupied the right wall of the uterus for ten years; under the influence of iodine, it did not notably increase in size. After 40 years of age, however, it enlarged and produced asthma. The writer says he has seen patients blistered over the chest and covered with a profuse rash from some irritant, dosed with the ordinary remedies for asthma, and remain unrelieved. One lady informed him that she dreaded her menstrual epochs as she would a "fearful accident." The suffering of some is as severe as it can be described, inasmuch as the asthma is of the dry form, without expectoration to relieve it. The author has found little benefit from smoking, inhalations, or external applications, and believes the whole attention must be devoted to the uterus. He recommends, according to the period that has elapsed since the commencement of the catamenia, warm baths, ergot, bromide of potassium, belladonna, locally and internally, iron and strychnia in the intervals, with iodine locally. "New-fangled remedies" have failed in his hands. Subcutaneous injection is neither safe nor satisfactory. With prolapse, a tumor, and uterine asthma, a belladonna suppository is used. The ocular disturbance, occasionally complained of, is a mere temporary inconvenience. The belladonna extract may be spread upon lint and applied to the dorsal and lumbar spines.

(Asthma due to irritation reflected from the uterus does not differ from that occasioned by irritation elsewhere. Blisters and chest irritants are wretched applications in *any* such form, especially when occurring in a delicate and nervous woman. We cannot believe that this is the "ordinary treatment" in England. In America, aconite, and the iodide and bromide of potassium, have long supplanted other remedies.)

16. *Caustics in the Treatment of Diseases of the Cervix.* GILT. (*British Med. Jour.*, December, 1875.)

The author sums up the results of his observations as follows: 1st. In comparatively recent cases of endocervicitis, nitrate of silver, tincture of iodine or carbolic acid suffices. 2nd. Chronic cases of endocervicitis had best be treated by acid nitrate of mercury, or nitric acid. 3rd. Hyperchronic endocervicitis, with considerable cervical hypertrophy, requires potassa fusa cum calce, or some strong acid. He thinks Dr. Braithwaite is too general in his recommendation of nitrate of silver.

17. *Imperforate Os Uteri*. DREYFOUS. (*Le Progrès Médical*, Oct. 16.)

A woman, 39 years of age, previously syphilitic, had suffered from no other prior disease, nor had ever been examined by the speculum—she had also never been cauterized nor used injections.

She had first menstruated at 20, and was well regulated for four years afterward; but then cessation of the catamenia had suddenly occurred, from plunging her hands into cold water. There were subsequent ill-defined periods, but, for twelve or thirteen years, there had been no vaginal discharge of blood nor supplementary menstruation. No leucorrhœa nor pregnancy had occurred.

On digital and speculum examination, no abnormal condition was discovered beyond the atresia, which was complete.

The interesting points in this case were: the excellent health enjoyed by a robust woman who had not menstruated for 13 years; the absence of every cause to explain the phenomenon, and the possibility of a congenital atresia; the early menstruation proceeded probably from the vaginal mucous membrane.

18. *Hæmatoma of the Vulva*. CANIVET. (*Le Progrès Médical*, Dec., 1875.)

A woman, 26 years old, received, two years before, a kick with the foot upon the left labium majus. An ovid tumor soon occupied the entire labium, inferiorly projecting more than superiorly, and presenting a mucous and cutaneous face externally. It was as large as a hen's egg, indolent to the touch, and fluctuating; and seemed to be multilocular in character, so that the idea of puncture was abandoned.

Under anæsthetics, the tumor was readily enucleated above; but with greater difficulty below, in consequence of a prolongation which extended toward the ischium. In it were found numerous pockets, containing about 50 grammes of a dark, chocolate-colored liquid—altered blood. Bartholins' gland was intact; the seat of the hæmatoma was periglandular.

Sanguineous cysts, due to traumatic exudation, are rare. Huguier has seen but one case, and thinks that cysts filled with blood eventually become serous.

19. *Evil effects of Vaginal and Uterine Injections*. PADLOCK. (*St. Louis Med. and Surg. Jour.*, December, 1875.)

The author gives an excellent summary of the discussion in the Obstetrical Society of Dublin, on Feb. 13, 1875, elicited by Thomas More Madden's paper on "Metro-Peritonitis, following the Use of the Ordinary Female Syringe." Inefficiency and danger of the syringe are pointed out, not only in the ordinary application of medicaments to the vaginal and uterine surfaces, but in those employed after delivery. The central and peripheral orifices in the nozzle of the syringe, are alike liable to induce dangerous results. It is pointed out that the question whether there is

transmission of fluids through the fallopian tube, is unessential, and subordinate to the question whether uterine colic, metro-peritonitis and peritonitis, supervene in consequence of either such actual transmission, reflected pain, neuralgia, or inflammation induced by neuralgia (Curling on the Testis), absorption, assimilation by chemical or vital processes, washing upward of morbid secretions from the uterus or cervix, etc.

It was shown that occasionally disastrous results follow in consequence of neglecting to exhaust the syringe of air, previous to its introduction into the vagina.

(Dr. Mac Arthur, of Chicago, was recently summoned to a lady, newly married, who was suffering from intense uterine pain and great nervous anxiety. He succeeded in removing from the cervix, the nozzle of a glass syringe, which had been broken off and left in the mouth of the uterus.)

20. *Irritability of Female Bladder for fifteen years, cured by Dilatation of Urethra and Neck of Bladder.* HEWETSON. (*Lancet*, December, 1875.)

An unmarried woman, 36 years old, suffered intensely from retention of urine, relieved by the catheter; the quantity of urine voided being such as must have distended the bladder nearly if not quite up to the umbilicus. She had been a schoolmistress, when, fifteen years before, she had had "inflammation of the bladder," terminating in a small abscess in the region of the urethra, which had spontaneously opened. Since then there had been headache, anorexia, "bearing down," depression of spirits, and nights disturbed every half hour or hour, by the necessity of passing small quantities of urine.

The orifice of the urethra was surrounded completely by warty growths of considerable size, and there was a tight sphincter ani. The rectum was baggy, and there was a small external pile. Uterus, catamenia and urine, normal.

The patient was anæsthetized, the warty growths removed, the pile snipped off, and the sphincter paralyzed, by stretching with the forefingers. During the next few weeks, there was relief of retention and pain in the motions of the bowels, but the vesical irritability remained, and in time the retention recurred.

On the 11th of April, the patient was again anæsthetized, and Weiss's female dilator was introduced into the urethra to the extent of about two inches, the blades being then *slowly* separated, and the urethra stretched so as to admit the forefingers within the bladder, while the parts were kept on the stretch. On closing the blades and withdrawing the instrument, the urethra contracted upon the little finger so as to sensibly grip it when introduced into the bladder, the coats of which were thickened. No foreign body was discovered there.

The irritability of the bladder and retention of urine were *completely* cured, without resulting incontinence.

21. *The Cotton Pessary*. PAGE. (*N. Y. Med. Jour.*, January, 1876.)

A piece of hard rubber rod, hollow or solid, as thick as a lead pencil and one inch and a half long, is bent with the fingers at any desired curve, after being passed through an alcohol flame. It is then laid upon a piece of cotton-batting, ten inches by eight, the long edge folded over about one inch and a half on each side. The rod is then placed at the short edge of the cotton, and firmly rolled the whole length of the piece, and then tightly wrapped with strong silk in the centre for one inch and a half, leaving a soft, compact and elastic ball at each end. (Small dumb-bell). Over the wrapping a piece of lint is sewed very smoothly, with the nap outside, and the pessary is complete. If the edges of the cotton are properly folded over, before the rolling, they will not fray or ravel, and the ends will be sufficiently protected.

IV. THERAPEUTICS.

1. *Physiological Antidotes to Opium*. PROF. J. W. HOLLAND. (*Louisville Medical News*, 1876.)

Two cases treated by the Professor prompted his article. To these victims of opium, everything regarded *au fait* had been administered. Emetics, stomach pump, atropia, coffee, *et id omne genus*, failed in accomplishing satisfactory results. Electricity applied in accordance with instructions of the books, yielded no hopeful returns. The battery was applied through the neck, brows, chest, from the neck to the epigastrium, from the neck to the feet, from hand to hand, and from the nape to the forehead. Some of these various applications produced more effects on the breathing than the others; and careful comparison convinced the Professor that the second place of application—viz., *through the brows*—possessed the greatest stimulating effect on respiration. Application of the electrodes upon these points of exit of the *supra-orbital nerves* was the finally adopted plan of treatment which was followed by a return to consciousness. Alternately shifting the electrodes, after keeping them in this position for a time, to some other portion of the body and then back again to the brows, was followed by better stimulating effects than the constant application produced. The writer thinks that it is far from being a *proven* fact that atropia is the antidote to opium.

(The editors desire to state that Pres. Freer of Rush Medical College has now under consideration and experimentation the theory that *artificial respiration* is, *par excellence*, the physiological antidote to opium narcosis. When he reaches a reliable conclusion he promises the JOURNAL AND EXAMINER an article on the subject.)

2. *Hypodermic Alimentation.* KRUEG. (*Wiener Med. Wochenschrift. Times and Gaz.*, Sept., 1875.)

Sustentation of life by placing food beneath the skin has excited incredulity in the minds of physiologists, "because," they say, "peptones can not be formed in that location." The subject of this observation was an Hungarian who had been in an asylum at Ober-Doebling since 1868; he had frequently attempted self-destruction by refusing all food, so that at one time he had to be fed regularly for 27 consecutive months. Sometimes he would relent and eat voluntarily. On January 18, 1875, he began again to absolutely refuse food, and continued so, excepting one day, till Jan. 24, when it was resolved to again resort to the tube. In using the latter, however, all attempts were foiled by incoercible vomiting, suffering, breathlessness and cyanosis. As ten days had elapsed without food, with the exception of one day, hypodermic injections of olive oil were determined upon. A syringe of 15 cubic centimetres (about three ounces) capacity was used, and one to two syringefuls were injected daily for the ensuing twenty days. The patient thus received from three to six ounces daily of olive oil. Each syringe was put into from two to five different apertures. Sometimes the foot was selected as the seat of puncture, at other times the belly and sides. The canula of an ordinary hypodermic syringe was used, between which and the syringe was a thin caoutchouc tube to prevent the patient's deranging the working of the apparatus. Occasionally, *after* the 29 consecutive days of fasting—during the last 20 of which hypodermic injections of olive oil were used—the patient would take food and then he would again refuse to eat, when the injections were resumed. At length his opposition to food was abandoned and he ate in a natural way, the experiment lasting about two months altogether.

3. *Another Case of Hypodermic Alimentation.* PROF. WHITTAKER. (*The Clinic*, Jan. 22, 1876.)

The patient, a young woman of 20 years, was first seen Nov. 3, 1875. Five years before admission she suddenly experienced a sharp epigastric pain, whilst actively exercising. This pain had persisted ever since, being aggravated by food. Five weeks prior to entering hospital she had suffered from vomiting. Nothing could be retained excepting the blandest food, and even that was sometimes promptly vomited. This condition obtained till Jan. 6, 1876, when the case was thus recorded: marked emaciation, exceedingly feeble pulse, almost imperceptible, high temperature (not stated how high), pains in the back and head, in the afternoon and night the delirium of inanition, complete exhaustion, death imminent. Hypodermic injections of a teaspoonful of milk, alternated with beef extract, were given every two hours. These injections were continued from the 6th to the 9th inst., inclusive. Under their use the patient's "temperature declined, the pulse became fuller and stronger, and the delirium and pain disappeared." The injections were continued till the 12th inst., when the patient was able to eat without pain or nausea. During these few days,

68 injections in different parts of the body were administered. During the last two days, cod liver oil was substituted for milk and beef extract. Only two abscesses were developed among all the 68 punctures, and those two were caused by the milk. The oil injections were absolutely painless, the oil being injected slowly. On one day as much as four ounces of oil were used. According to Prof. Whittaker the absorption of the cod oil is facilitated by its contained bile which is detectable by sulphuric acid. In the alimentary canal, oils are absorbed largely by the blood-vessels and not exclusively by the lacteals. The presence of bile is necessary to this absorption—a fact proven by physiologists. Hence cod liver oil subcutaneously injected is absorbed by the capillaries in its neighborhood precisely in the same manner as by the sub-mucous blood-vessels of the small intestine.

4. *A New Use for Carbolic Acid—Opening Abscesses without Pain.* Dr. BERGONZINI, of Bologna. (*Revista di Bologna*, 1875.)

Put on the skin for three or five minutes, a solution of two parts of carbolic acid to one part of glycerine. If the skin be previously inflamed (as is ordinarily the case in abscesses following great inflammation) a too protracted contact of the anæsthesiant liquid must be avoided. Dr. Bergonzini, who has used this very simple means with success, thinks that it can be utilized in autoplasmic operations as well as in superficial neuralgias.

5. *Coffee as a Preventive of Malarial Diseases.* PROF. J. W. HOLLAND, M.D. (*Louisville Med. News*.)

The writer calls attention to the instinctive desire for coffee experienced by well persons and those sick from malarial causes, residing in malarial districts of the country. The design of his writing the article is to elicit facts relative to this subject. His own experience led him to suppose that coffee drinking protected him in a great measure from the effects of malaria. The Confederate army in our late war suffered from the lack of coffee, while the Federal army was measurably free from the suffering noticed in the former, because it was wisely supplied with an abundance of material for this beverage. The fact is elicited from a communication to the writer from a student from the Indian Territory, on Arkansas river, six miles west of Muskogee, an excessively malarial district, that the Indians call for coffee as the first article of purchase at the trading-post, when they take in their furs for exchange. They can not get along without it. Patients in this section of country, sick from malarial causes, recover quicker when allowed the much-desired coffee during their illness. Another student, from Pekin, Indiana, says that coffee is regarded as a prophylactic against palustral diseases. Coffee drinking in his country is very common. The more decidedly malarial the district, the more and stronger the coffee used.

(Malarial poison, whatever it is, undoubtedly is a "depressant to the

nervous system," and coffee acts as Prof. Gubler teaches that quinine acts, *not by destroying* the disease germ, but by *stimulating* the system, producing a predominance of the latter effect. Caffeine and its consort, theine, are wonderful stimulators, and coffee produces much the same effect as quinia does in malarial parts of the country. It is easy to understand the instinctive longing for coffee in persons residing in districts rich in malaria.—Ed.)

6. *Senna in Remittent Fever.* (*The Canada Lancet*, Feb., 1876.)

The writer strongly recommends this drug to relieve the symptoms pointing to cerebral disturbance. The chief indications for its use are cephalalgia, pain, confusion of thought and delirium—one or all. The open or confined condition of the bowels is of no moment; if the head symptoms supervene, senna purgation will relieve them, lessen the febrile movement as indicated by the thermometer, and increase the duration of the remission. Quinine can then be more advantageously administered.

7. *Successful Restoration from Chloroform Narcosis by Nélaton's Method.*
EUGENE SMITH, M.D. (*Detroit Review of Medicine*.)

The patient was a girl seven years old, and after the operation (for strabismus) was finished, she suddenly ceased breathing, and "there was no RADIAL or CAROTID pulse." The patient was held up by the ankles, the head hanging down, and artificial respiration made, while she was held in that position. After three or four minutes "there was a feeble gasp—and after-awhile another, and then another," and afterwards the breathing was restored. The breathing ceased a second time, shortly after laying her down, and a second restoration, similar to the first, was similarly effected. For the THIRD time she passed through the same terrible experience, in a few moments subsequently, and the same means restored her again, just as they were about to give her up, because this period was the longest of the three, and the doctor supposed the patient dead. The third restoration was followed immediately by vomiting, and complete consciousness quickly followed.

8. *Poisoning by Goat's Milk.* (*Gazette Obstét. et Gynécol.*, Jan. 20, 1876.)

The German and Italian journals report the history of a small epidemic in the environs of Rome, whose source is somewhat curious. A great number of the inhabitants were seized with gastro-intestinal irritation, characterized by diarrhœa, vomitings, and intense thirst, a notable diminution in the temperature, and a frequency of the pulse.

After investigation, the physicians suspected the goat's milk which is in general use in the country. The animals were examined by the veterinary surgeon and pronounced healthy. The milk was analyzed, as well as the dejections from the patients, and not a single trace of metallic poison was found.

Suspicion then rested upon the ordinary pasturage of the goats, and there were found four plants more or less poisonous, viz.: *Clematis Vitalba*, *Conium Maculatum*, *Colchicum Autumnale*, and *Plumbago Europæa*. The matters vomited and the milk (analyzed anew) presented the chemical reactions characteristic of *colchicine*.

9. *A New Means of Distinguishing Apparent from Real Death.* (El. Pabellon Médico.)

It consists in injecting a drop of ammonia beneath the skin; if death is certain, this drop will produce no effect whatever, or almost none; if life still be present, a red spot will appear at the point of injection.

10. *Articular Rheumatism Treated by Salicylic Acid.* DR. STRICKER. (*Allg. Med. Zeitung*, 1876, No. 8.)

The author reports fourteen cases of articular rheumatism which, in Traube's clinic, were treated with salicylic acid. "Within forty-eight hours all the patients not merely recovered of the increase of temperature, but also were entirely relieved of the local symptoms, *i. e.*, the swelling, redness, and particularly the pain and tenderness of the joints." He, of course, considers the salicylic acid to be the most efficient, perhaps a specific, remedy for the acute rheumatism of joints. But he insists upon administering a pure acid, which forms perfectly white crystalline needles and with water and alcohol makes a perfectly clear solution. The pure acid can be given in pretty large doses without any injury to the digestive organs; the caustic property attributed to the salicylic acid the author claims to be due to impurities. He gave it in powders, one-half to one gramme each, every hour, until the diseased joints could be moved without pain; for this purpose no more than fifteen nor any less than five grammes were required; the larger doses produced a ringing in the ears and dullness of hearing (like quinine.)

11. *On the Action of Scilla.* HUSEMANN. (*Allg. Med. Zeitung*, 1876, No. 8.)

The author expresses his opinion based on numerous experiments on the action of the scilla as follows: The extractum scillæ, prepared after the receipt of the German pharmacopœia, is a very reliable preparation, and acts upon the innervation of the heart exactly in the same way as digitalis; its diuretic action must be attributed to the increased arterial pressure as the natural consequence of its action on the heart, for it has no stimulating nor irritating influence on the kidneys; it is not an antipyretic remedy; on the contrary, in smaller and larger doses, it always causes an increase of the temperature of the body.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

A SERIES OF AMERICAN CLINICAL LECTURES. Edited by *E. C. Seguin, M.D.* New York: G. P. Putnam's Sons.

We have before us the last two numbers of this most excellent series of lectures, that have been running through the year 1875, appearing in pamphlet, and paged and arranged for binding in book form.

The lectures of the series are as follows: *On Disease of the Hip Joint*, SAYRE; *Acute Rheumatism in Infancy and Childhood*, JACOBI; *Pneumothorax*, FLINT; *Rest in the Treatment of Nervous Diseases*, MITCHELL; *On the Treatment of Sciatica*, THOMSON; *Otitis*, AGNEW; *Capillary Bronchitis of Adults*, ELLIS; *Inflammatory Origin of Phthisis*, HUTCHINSON; *Peritonitis*, LOOMIS; *Gleet, and its Relations to Urethral Stricture*, OTIS; *On the Diagnosis of Paraplegia*, WOOD, Jr.; and *On the Nature of the Gouty Vice*, DRAPER.

Most of these lectures are excellent; many of them are superb in their terseness and the clinical value of the points set forth. Because we are in need of more purely clinical studies by men best able to make them, we regard the present effort worthy the endorsement and fostering of the profession.

The eleventh lecture on the diagnosis of paraplegia by Dr. H. C. Wood, Jr., is one of the most clear and plain expositions of the subject we remember to have seen. It is poetical in the truths it tells in few words. The whole volume might well be purchased for this one lecture.

The closing lecture *On the Nature of the Gouty Vice*, by Dr. W. H. Draper, is peculiar. This seems to be a production, the chief object of which is to establish the existence in large masses of the community of a gouty vice.

We had supposed gout an unusual disorder in this country. According to the teaching of this lecture most people who are sick are victims of gouty vice.

If your ancestors had rheumatism, anything that ails you is likely to be the vice of gout; if you chance to have aches in your joints or tendons, it is due to gout. If you have a sour stomach, feelings of malaise, irregular action of the bowels; if you have what the world calls biliousness, if you have flatulent and acid dyspepsia, it is due to the disturbances of the gouty vice. If you have with these digestive disturbances any eruption on the skin, it is sure to be due to the gout that is in you; it is doubly sure to be so if the disorder chance to be psoriasis, chronic eczema or acne. We are told that frontal headache, pain in the back of the head and neck, pain in the eyeballs, burning sensations in the palms and soles, numbness of the hands and forearms, pains in the tendo achillis or dorsum of the foot, "are some of the more common dysæsthesiæ" of gouty subjects, and that cynanche tonsillaris, acute pneumonia and cirrhosis of kidney and liver, tend to occur oftener in gouty than other subjects.

In the diagnosis the argument is not toward learning what ails the patient, but toward proving the existence of the gouty vice. "To substantiate the gouty nature of a cutaneous lesion, you must look for some of the concomitant functional and lesional derangements" of gout. "Frequently valuable information, corroborating a suspicion of this vice, may be obtained by seeking the cause of death in the family," etc. "Death from 'heart disease,' 'Bright's disease,' 'dropsy,' or sudden death from apoplexy, are always significant circumstances in the history of the gouty diathesis, just as death from phthisis is presumptive evidence of a scrofulous taint."

Reading this lecture we gather that most of us eat too much or stimulate too much with fermented liquor, or we do not get enough oxygen in the air we breathe. There results a failure of perfect oxidation of the waste of food

and tissue, and what should become urea stops short at uric acid. This in the blood leads to all the lesions mentioned, and many more. Whenever any of these ills come upon us, it is gout, and we have the gouty vice.

But why call it gout, and make the word a scapegoat to carry such burdens? Any other word would do as well, and many would answer better. Why not say rheumatic, bilious or acid diathesis? or the dyspeptic diathesis, which would be far better, more philosophical, and not half so misleading?

The treatment recommended is: oxygen, iron and dilute alkalies.

THE PHYSICIANS' COMBINED CALL-BOOK AND TABLET. Prepared by *Dr. Ralph Walsh*, of Washington, D. C.

This is a book designed to take the place of the ordinary visiting list of physicians. It is long, thin and flat, and so easier carried in the pocket than most of our lists. It may be used continuously until full, not being prepared for any particular year and month.

A MANUAL OF BANDAGING, ADAPTED FOR SELF-INSTRUCTION. By *C. Henri Leonard, A.M., M.D.* With over One Hundred Illustrations. Detroit. 1876.

The author has shown admirable endurance in the tedious and dreary work of compiling a manual on bandaging. It is designed for the self-instruction of those who have never had the advantage of hospital drill; but we fear the compilation is too indiscriminate for the purpose. It describes the bandages of all patterns, simple and complicated, modern and obsolete, practical and ornamental, useful and useless.

One might as well attempt to learn dancing from books, as to acquire the art of bandaging by perusing a manual.

Medical News and Items.

On the evening of February 14, the Chicago Society of Physicians and Surgeons had an opportunity of inspecting and carefully examining the person of Catherine Hohmann, who has furnished both spermatie fluid and menstrual blood in the presence of experts.

This monster presents an example of bisexual hermaphroditism which is of such rarity that but two, or at the most three, similar cases have ever been recorded.

The readers of the JOURNAL AND EXAMINER, for 1875, will recall a description of this case in Obs. V. of the article on "Hermaphroditism from a Medico-Legal Point of View," translated from the French by Edw. Warren Sawyer, M.D. The original was obtained from a description by Ceccherelli in *Lo Sperimentale*.

WE take pleasure in announcing daily additions to our list of foreign exchanges. Among those of the last month are the time-honored *Edinburgh Medical Journal*; *Giornale della R. Accademia di Medicina di Torino*; *Anales de Ciencias Médicas*; *Anales de la Asociacion Larrey*; *Gazetta Medica Italiana, Lombardia*; *Archives Générales de Médecine*; *Gazette Obstétricale et Gynécologique*; *Annales de Dermatologie et de Syphiligraphie*; *L'Union Médicale*; *Lyon Médical*; and the *Journal de Médecine et de Chirurgie*.

AN AUSTRIAN PHARMACEUTIST, in Vienna, has adopted the plan of indicating on the labels of jars and bottles the weight of the *maximum* pharmacopœial doses. The dispenser is thus warned at once if he meet with a prescription in which the maximum dose is exceeded, and can institute measures to assure himself against fatal errors by the writer.

THE EXERCISES of the Twenty-Third Annual Commencement of Rush Medical College, were held on Tuesday Evening, Feb. 15, 1876, in Martine's Hall, cor. 22nd street and Indiana avenue.

Professor F. W. Fiske made the opening prayer, and was followed by President Freer, who delivered an appropriate address. Prof. J. Adams Allen then succeeded, with an address in which he sketched the history of the College and aroused the mirth of his auditors by the fascinations of that sparkling humor which is so characteristic of the speaker. The President then conferred the degrees, and was followed by Prof. E. L. Holmes, who made the third address of the evening, after which the benediction was pronounced. The literary portions of the programme were interspersed with music.

The occasion was one of the happiest that has occurred since the destruction of the old building by fire, and will be long remembered with pleasure by all who were present.

The following are the names of the graduating class :

WELLS ANDREWS, JR.	OLIVER P. H. JEFFRIES.	WILLIS F. PIERCE.
BENSON BANTON.	FRANK SEBRA JONES.	GEORGE F. PLEW.
IRA BISHOP.	HENRY W. JONES.	GEO. W. RAMSEY, B.S.
DAVID HAMPTON BOWEN.	JOSEPH P. JOHNSON.	WM. HENRY REEDY.
LOUIS BRAUN.	ALPHON. F. KALCKHOFF.	FRANK S. REYNOLDS.
CHARLES H. BUCHANAN.	ANDREW KERSHAW.	LEONARD ROGERS.
FRANK W. BULLOCK.	ALFRED M. LANCASTER.	CHARLES A. ROOD.
ROBERT W. BUTLER.	WM. M. LARRABEE.	JOHN S. RYBURN.
WM. HARRIS COOK.	FRANK LIGHTFOOT.	CHAUNCEY M. SKINNER.
WM. HENRY CONIBEAR.	WM. M. MACFARLANE.	CALVIN K. SMITH.
WM. H. DOOLITTLE.	FINLA McCLURE.	EUGENE SMITH.
JAMES DUNN.	JAMES D. MCINTYRE.	EUGENE R. SMITH.
FRANK W. EDWARDS.	JACOB MAY.	THOMAS A. SMITH.
JOSEPH H. ESDRIDGE.	JAMES ALLEN MEADE.	EDGAR SNYDER.
FRANK B. FLORENTIN.	JOHANN H. W. MEYER.	BENJAMIN E. STRICKLER.
CYRUS W. FRANCE.	WM. WALKER MEYER.	AUGUST T. THIEMAN.
GEO. W. GAMMON.	EDW. WM. MINTON, A.B.	GEO. KING TILLOTSON.
JOHN R. GARDINER.	FRANCIS M. MOORE.	CHARLES HENRY VENN.
BYRON W. GRIFFIN.	CHRIS. DEAN MOREY.	CLARK RIENZI WARREN.
ALLEN W. HAGENBUCH.	HIRAM IRVING NANCE.	ROBERT R. WILLIAMS.
ROYAL G. HAMILTON.	FLOYD O'BRIEN.	JOHN BRAND YOUNG.
JAMES M. HARMAN.	MICHAEL T. O'CLERY.	
GUSTAVUS F. HARVEY.	SMITH ORR.	AD EUNDEM.
JOHN HENRY HERON.	DAYTON PAINTER.	JOHN A. STURGES, M.D.
NOAH R. HOBBS.	BRODIE W. PARKS.	
SAMUEL J. HOLMES.	CAMPBELL WM. PATRICK.	HONORARY.
ROBERT HUTCHINSON.	AUGUSTINE PERKINS.	FOSTER PRATT, M.D.
JOHAN C. HVOSLEF.	HENRY PETTIBONE.	

CAUSE OF THE VICE-PRESIDENT'S DEATH.—Dr. W. A. Hammond recently read a paper on the above-named subject before the New York Neurological Society. He thinks that death occurred from a lesion of the medulla oblongata. Well-marked calcareous degeneration of the basilar artery existed, and gastric ecchymotic spots and erosions of the gastric mucous membrane also existed, showing changes in the medulla oblongata. No clot of sufficient size to prove fatal, was found in the brain. Hence his conclusions.

THE APPEAL of the Committee of the Centennial Medical Congress at Philadelphia meets with cordial responses abroad. A medical Centennial Committee has been organized in Paris, and an office opened for the facilitating of its labors, at the Hôtel Cluny, Rue du Sommerard.

PROFESSOR PITHA, of Vienna, died December 28, 1875. In 1843 he was elected professor of surgery at the University of Prague; and in 1857 he was called to Vienna to fill the chair of surgery in the new military Joseph-Academy. The Vienna medical school has lost in Pitha an accomplished surgeon, an excellent diagnostician and a popular clinical teacher.

A CURIOSITY.—A deaf mute recently gave birth, in Paris, to her seventh child. She is married to a deaf mute. Five of her children were still-born and the sixth lives, talks and understands very well.—(*Journal des Sages-Femmes.*)

SMALL-POX.—950 cases of this disease and 218 deaths, appeared in Cincinnati between January and November 1st, 1875.

DANCER'S CRAMP.—Dr. B. Schultz describes, in a recent number of the *Wiener Med. Wochenschr.*, a disease peculiar to solo dancers in the ballet, which has come under his observation in three cases, the most aggravated of which is described as follows: The patient complained of suffering very severe pains while dancing. Beginning in the soles of both feet the pains spread with increasing severity to the calves of the legs; they at last became so violent that her feeling of security was lost, the feet seeming as if made of wood. These pains were accompanied with violent palpitation; and, if she continued to dance, she felt faint and sometimes lost consciousness, the body becoming quite rigid. When the pain and palpitation were less intense, the pain continued after dancing, and ceased very gradually, leaving some tenderness of the soles; on attempting again to dance, the suffering would recur. Dr. Schultz found, from the examination of these cases, that the cause of the pain lay in the *pas* performed on the points of the feet, and is owing to exhaustion of the muscles which fix the metatarsus and phalanges of the great toe. The shoe worn by the dancer, without which the ballet step seems to be impossible, is made as follows: The dancing-shoe is made rather wide; the sole is of soft leather, and shorter than the foot, reaching only as far as the posterior third of the ungual phalanx of the great toe. The upper part, generally of satin, projects forward, and supplies the place of the deficient leather of the sole. This part of the satin is worked in threads, so that it may not be torn. In the interior of the shoe, over the leather sole, is a layer of thin, firmly pressed pasteboard, either extending over the whole breadth of the anterior part, or limited to the length of the great toe. In the former case it is carried back, gradually narrowed as far as the heel. The leather sole and its covering are lined with fine kid leather. The heel part of the shoe is quite soft, consisting only of satin; and the shoe is fastened above

the ankle by narrow ribbons. Without this preparation the pointed step is impossible.—*N. Y. Med. Rec.*

A NIGHT SERVICE of the following character has just been established in Paris :

The physicians of each district are requested to state whether they will respond to calls made in the night.

The names and residences of those willing to respond to such calls, are inscribed in a record-book preserved in the police station of the district.

Those who have need of a physician in the night repair thither, and select any name they may desire from the list.

An officer, detailed for that purpose, accompanies the applicant to the physician's residence, escorts him to the patient's house, and, the visit over, reconducts him to his own home.

A small fee is charged for this service, payable by the family of the patient.—*Jour. de Méd. et de Chir.*

A NEW MEANS of disinfecting the hands after making *post-mortem* operations, etc., is found, says the *Australian Med. Jour.*, in a combination of a drachm of ethereal solution of peroxide of hydrogen and an ounce of Rimmel's toilet vinegar.

IF A PIECE OF NITRATE OF SILVER should break off while you are cauterizing the throat, and it should be swallowed, the simplest way of preventing any cauterization of the stomach is to make your patient drink a large quantity of salt water. The silver will at once be turned to the insoluble chloride, and this will be vomited up.—*Memorabilien*, xx, 11.

BERGERON, in the Archives of Gynecology, calls attention to the difficulty of diagnosis, in a medico-legal point of view, in very young girls who have been indecently assaulted. It is well known that amenorrhœa may exist for several months in young and recently-married women, due solely to the first conjugal approaches. This is also often observed in young girls who have menstruated but once or twice. In seven cases the author has observed abdominal enlargement, with suppression of the menses, in young girls twelve, thirteen and fourteen years of age. He has also observed great abdominal enlargement, flattening of the costal regions, depression of the umbilicus, suppressed menstruation, enlargement of the breasts with brown areolæ of nipples, morning sickness, softening of the cervix, and a brownish line running from the mons veneris to the umbilicus, distinctly traceable. Pregnancy had not occurred. The medico-legal value of these observations is of some importance.

DISLOCATING THE JAW FOR CHLOROFORM NARCOSIS.
—Dr. Fleiberg, of Christiania, recommends the surgeon to deliberately dislocate the jaw, instead of pulling the tongue out with forceps, etc. It is easy to do this by placing both thumbs behind the symphysis, and both index fingers on the posterior edges of the rami, and dragging the bone forward. He seems to do it as a preventive, for he speaks of having done it *a thousand times*. Langenbeck tells us that he and Esmarch have often done this. Perhaps these surgeons will tell us if dislocation often occurs spontaneously to those who have thus been treated.—*The Doctor*.

DURING THE YEAR 1875, twenty per cent. of all children born in the city of Mexico were illegitimate. The registered births amounted to 9,184.—*Anales de la Asociacion Larrey*.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS.

SOCIETIES.

Mondays, Mar. 6 and 20—Chicago Med. Society, regular meetings at Gault House, 8 P.M.
Mondays, Mar. 13 and 27—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P.M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P.M.—Prof. Holmes.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Merriman.
 At Central Dispensary (239 W. Van Buren St.), 2 P.M., *Gynecological*—Dr. Adolphus; 3 P.M., *Medical*—Dr. Bridge.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Johnson.

LECTURES. *Every Monday.* At Rush College (18th and Arnold Sts.), 9 to 1 o'clock—Drs. Wadsworth, Knox, Sawyer and Jackson. At Chicago College, 8½ to 12½—Profs. Jewell Quine, Merriman, Hyde and Bond; 3 to 6—Profs. Davis and Nelson, Andrews and Quine and Roler.

TUESDAYS.

SOCIETIES.

Tuesday, Mar. 14—Academy of Sciences, regular meeting, 8 P.M. (263 Wabash Av).

CLINICS. *Every Tuesday.*

At County Hospital, 2 P.M., *Medical*—Dr. Bevan; 3 P.M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Hollister.

LECTURES. *Every Tuesday.*

At Rush College, 9 to 12—Drs. Owens, Bridge and Strong; 4—Dr. Danforth. At Chicago College, 8½ to 12½—Profs. Jewell, Isham, Merriman and Bond; 3 to 6—Profs. Davis and Nelson, Andrews and Hatfield, and Byford.

WEDNESDAYS.

CLINICS. *Every Wednesday.*

At County Hospital, 2 P.M., *Ophthalmological*—Dr. Montgomery; 3 P.M., *Gynecological*—Prof. Fitch.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Nelson.
 At Mercy Hospital, 2 P.M., *Surgical*—Prof. Andrews.
 At Central Dispensary, 2 P.M., *Medical*—Dr. Bridge.

LECTURES. *Every Wednesday.*

At Rush College, 9 to 12, Drs. Wadsworth, Ingals and Knox. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Merriman and Bond; 3 to 6—Profs. Davis and Curtis, Jones and Quine, and Roler.

THURSDAYS.

CLINICS. *Every Thursday.*

At Chicago College, 2 P.M., *Gynecological*—Prof. Merriman.
 At Central Dispensary, 2 P.M., *Diseases of Chest*—Dr. Ingals.
 At Mercy Hospital, 2 P.M., *Medical*—Prof. Johnson.

LECTURES. *Every Thursday.*

At Rush College, 9 to 1—Drs. Hyde, Bridge, Strong and Jackson. At Chicago College, 8½ to 12½—Profs. Hollister, Merriman and Bond; 3 to 6—Profs. Davis and Nelson, Andrews and Hatfield, and Byford.

FRIDAYS.

SOCIETIES.

Friday, Mar. 10—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P.M.

CLINICS. *Every Friday.*

At County Hospital, 2 P.M., *Medical*—Prof. Bevan; 3 P.M., *Surgical*—Prof. Bogue.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Roler.
 At Mercy Hospital, 2 P.M., *On Dis. Eye and Ear*—Prof. Jones.
 At Central Dispensary, 2 P.M., *Gynecological*—Dr. Adolphus.

LECTURES. *Every Friday.*

At Rush College, 9 to 1—Drs. Wadsworth, Hayes, Sawyer and Case; 4—Dr. Danforth. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Merriman and Bond; 3 to 6—Profs. Jones and Curtis, Andrews and Quine, and Roler.

SATURDAYS.

CLINICS. *Every Saturday.*

At Rush College, 2 P.M., *Surgical*—Prof. Gunn; 3 P.M., *Diseases of the Brain and Nervous System*—Dr. Hay.
 At Chicago College, 2 P.M., *Gynecological*—Prof. Nelson; *Surgical*—Prof. Andrews; 3 P.M., *Medical*—Prof. Davis.

LECTURES. *Every Saturday.*

At Rush College, 9 to 1—Drs. Owens, Hay, Strong, and Case. At Chicago College, 8½ to 12½—Profs. Hollister, Quine, Sherman and Hatfield; 3 to 6—Profs. Davis and Nelson, Andrews and Quine, and Byford.

There are six special Clinics daily at the South Side Dispensary (at Chicago College) for students of the Chicago College. A daily Clinic is given at Dispensary of Hospital for Women and Children, 1½ P.M., for students of Woman's Hospital College.

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Original Communications.

CHOLERA VIEWED FROM A NEW STANDPOINT.

A paper read before the Chautauqua County Medical Society, January 18th, 1875,
introductory to discussion,

By HENRY R. ROGERS, M.D., DUNKIRK, N. Y.

This disease, from its peculiar character and fatal effects, has engaged the attention of investigators and writers to an extent scarcely equaled by any other in the catalogue of maladies.

The time, the careful study, the patient investigations, and the apparently exhaustive discussions which have been devoted to the elucidation of this great and vitally important subject, ought to have secured to us something more tangible in positive knowledge of its nature, its cause, its dissemination and its treatment.

The opinions which prevail to-day prevailed more than a quarter of a century ago, and the treatment of to-day scarcely differs from that employed for many years past. The whole pharmacopœia has been drawn upon for remedies with which to combat it, and, *of the innum-*

able forms of treatment made use of, there is scarcely any variation in the results.

Have investigators never found themselves querying, whether the views upon the subject which have been held as indisputable, might not, after all, prove to be erroneous?

Whatever differences of opinion may have obtained regarding minor points, in one or two respects there has been remarkable unanimity. The opinion that it is an idiopathic disease of the primæ viæ, or of the blood and primæ viæ, has passed almost unquestioned, from its earliest history to the present day. From this central standpoint have radiated the thousand and one ideas as to its nature, cause and treatment, and nearly all studies, all investigations, and all arguments, have been founded upon this axiomatic basis.

I may be permitted, and, too, I hope without the charge of egotism, to assume a different standpoint.

Some of the ideas advanced will not be those usually entertained by the profession, yet I hope they may be received without prejudice, entertained with candor, and judged dispassionately. They combine the results of personal experience and observation both in this country and abroad, during the various epidemics which have occurred in the past twenty-five years, also the results of an experience of the writer derived from an attack of the disease.

I. *Nature.*—The cholera I regard to be essentially *a disturbance of innervation.**

Its various phenomena may be more satisfactorily accounted for upon this, than upon any other hypothesis. The following are a few of the grounds upon which I found my conclusions:

1. The *purging*, or, *more properly speaking*, the *transudations*, in the profuseness and painlessness

* "Innervation. The nervous influence necessary to the maintenance of life and the functions of the various organs." DUNGLISON.

which characterize them, *could not occur, except the nerves, whose function it is to preside over the parts implicated, fail to perform their duties in a normal manner.*

The unlocking of the exhalent orifices of the blood vessels, *permitting the rapid filtration into the stomach and intestinal canal, of the finer elements of the blood, and sometimes of the blood itself, is a positive evidence of perturbation of tone in the membrane through which the infiltration takes place.*

This abnormal condition cannot be claimed to result from the presence of inflammation, *neither does any process of poisoning, by any substance known to man, produce a similar effect upon the nervous system.*

The excessive sweating arises from the same general cause.

2. The *cramps* arise from purely nervous causes.

3. The *vomiting* is simply regurgitative.

4. The *collapse* is usually due to the rapid withdrawal of the natural stimulus of the brain, *i. e.*, healthy blood, in normal quantities, yet it also arises from the initial force of the invasion of the disease.

5. In the more rapidly fatal cases in severe epidemics, death sometimes results from the initial force of the disease *expending itself upon the brain and nervous system*, and it takes place even before the serous elements of the blood have entered the *primæ viæ*.

6. No pathological changes are discoverable when death has resulted at an early period of the disease, *neither have any constant and uniform pathological conditions been observed after death, occurring in any of its stages.*

The epithelial changes are unimportant, *as they never produce appreciably unfavorable effects.*

7. When the disease is arrested in its earlier stages, and, too, not unfrequently in cases where the symptoms have been most grave, the recovery is immediate, and no effects upon the system are observable, other than those

resulting from the loss in the quantity of the circulating fluid.

8. The cause most favorable to its production during the prevalence of epidemics is *fear*. This, the most powerful of all nerve depressors, directly favors, and also invites attack.

II. *Cause*.—The theory of “*a peculiar epidemic influence as an essential and specific cause*,” offers a solution of the problem, which, if not entirely satisfactory, is open to as few objections as any other.

The facts, that the disease in its migrations overleaps immense distances, where no human agencies could account for it; that it travels against winds; and that it prevails in temperatures below zero, should receive more consideration than is usually awarded them, in estimating its causes. The first is opposed to the theory of a specific poison, and the generally accepted germ theory is inconsistent with the two latter.

III. *Dissemination*.—Other influences contribute in spreading the disease when once originated. What these influences are, and in what manner they produce their results, yet remains a mystery. The commonly accepted proposition, that it travels by routes which may be traced on maps with lines made with almost mathematical accuracy, cannot be sustained by facts. The data upon which this conclusion is founded, are too unreliable to admit of positive theories being founded upon them.

That the influence during prevailing epidemics is more generally pervasive than has been heretofore supposed, I fully believe. It is received or not into the various systems, according to their different degrees of susceptibility. Persons thoroughly impregnated may escape an active attack, if no exciting cause be present to awaken it into action, and the subject later becomes freed from its presence by spontaneous elimination.

IV. *Treatment*.—The treatment of this disease, if the foregoing premises are correct, emerges from empiricism and becomes thoroughly scientific. It becomes also simplified to the last degree. The remedies selected should be prompt in their effects in correcting disturbed innervation; even moments of delay may sometimes result in the sacrifice of a life.

Influenced by my appreciation of the character of the disease, and impelled by the urgency of my cases, I have in my latest experience made use of the acetate of morphia, hypodermically applied, in its treatment. This produces less of dizziness and nausea than the sulphate or hydro-chlorate.

It acts quickly and efficiently.

No one may know, without a personal experience, the value of this agent, thus administered, in controlling this disease.

The main indication in the treatment being thus met, other conditions incident to the disease may properly be treated upon general principles.

The *brain and heart* becoming enfeebled by the rapid abstraction of the serous elements of the blood, the same condition is produced as that resulting from the rapid loss of a large quantity of blood, (as in the flooding of parturition or abortion,) for which the horizontal position is necessary, and, if the discharges be profuse, the safety of the patient renders it *imperative* that the head be kept lower than the body, for a considerable period of time, that those organs may become in a measure resupplied by gravitation.

The *stomach* becomes morbidly sensitive. Its demands for liquids, in consequence of the rapid abstraction of the fluids of the body, become excessive, and the thirst intense, at the same time the mucous membrane will not tolerate the presence of water, much less of food or medicines. This condition is an indication for the internal employment of ice; this cools the burning heat of the stomach and in a degree allays the thirst, and the

water is so rapidly absorbed that it does not become a source of irritation and provoke vomiting.

The *bowels*, as sensitive as the stomach, require something to diminish the sensibility along their whole track, and to shut up the millions of patulous orifices from which the stream of life is flowing. This indication is met by the remedy proposed.

The *nerves* in their abnormal condition throughout the system require immediate control to give relief from sufferings. This is also met by the same remedy.

The *circulation*, necessarily depressed, should be promoted by external heat, frictions, etc.

The *collapse* should be treated by position, external heat, and stimuli, also by enemas containing nutriment and stimuli. Opiates are harmful in this stage.

En résumé, the treatment resolves itself into—

1. The hypodermic use of acetate of morphia, administered according to the age and condition of the patient. In cases of no great urgency, other remedies and methods of administration may be employed. Opium and its preparations are preferable, however administered.

2. The horizontal position, with the head as low as the body or lower.

3. *For the mouth, nothing but finely pounded ice, and that ad libitum.* Where this cannot be obtained, the coldest water may be given and frequently repeated in smallest quantities, until it can be tolerated without provoking vomiting.

4. External heat, frictions, etc.

5. For collapse: position, external heat and stimuli, and, by enemas, nutriment and stimuli.

6. After-treatment for restoring wasted forces.

A few cases in illustration of this treatment, may serve in a measure to give a practical character to this paper. Of the cases treated by the writer (eleven in number), eight were grave and typical. In all, *the pathognomonic symptom* (the rice-water discharges) was present.

As in all of them the train of symptoms and the treatment were about the same as already suggested, it will not be important to fully describe either, in symptoms or treatment. I will, therefore, mention such points as may be deemed of interest.

1. Mr. O'D., aged about 50 years. After a diarrhœa of thirty-six hours continuance in comparatively mild form, the symptoms became more grave ; vomiting, profuse rice-water discharges, cramps of the abdomen and legs, blue and shriveled skin and husky voice, were present when I was called in attendance. I found the pulse feeble, and numbering 140 per minute, and the prostration was extreme. My diagnosis was cholera, and the prognosis, fatal. The treatment was nearly as described ; the acet. morph. was hypodermically administered, in a quarter of a grain dose, and acted favorably in relieving the most urgent symptoms, but it was not repeated, as collapse was soon present, and the patient sank gradually, expiring a few hours after my first visit. In this case stimulants and usual cholera remedies were employed, in addition to those mentioned.

2. Mr. M., aged about 55 years ; health fair, but in person emaciated ; habits regular, and no assignable cause for the attack. After a slight diarrhœa of some hours continuance, the invasion was abrupt, with usual symptoms in high degree. Morphia, position, ice, frictions, and external heat, were employed. No other medicaments were used. The result was favorable.

3. Was a repetition of the above.

4. Mrs. F., a German woman of 45 years, a resident of the country. I saw her first after many hours of illness ; the vomiting, purging and cramps were most distressing and very frequent, and her condition was one of greatest prostration. The case was very unpromising, and the family had quite despaired of her recovery. The disease responded promptly and favorably to the treatment ; the recovery was slow, but otherwise satisfactory ; no other medicines were administered.

5. Miss F., aged about 30 years, a resident of the country ; had been ill many hours when I was called in attendance, and her condition on my arrival was alarming ; the pulse was rapid and feeble, and the forces well nigh exhausted by reason of previous discharges and sufferings. On entering the sick room I at once applied the acet. morphiæ in dose of quarter of a grain, hypodermically, and almost immediately afterwards she was again seized with cramps ; for a short time frictions, heat, etc., were employed without apparent benefit, she then begged to be permitted to stand upon her feet, as that position had previously given her relief when other means had failed. I could not resist her appeals, emphasized as they were by her sufferings, and with a mental protest I gave the desired permission and retired from the room. I was soon recalled by her sisters, who said that she was dead. On returning, I found her pulseless and pallid ; after a time slight reaction took place, and under the circumstances, I regarded it my duty to administer stimulants ; these were quickly ejected and appeared rather to increase her sufferings ; the treatment from thence was solely by hypodermic injections and the accompaniments mentioned. In this case, as in nearly all of the others, the applications of morphia were made at intervals of from three to six hours, and in doses of one-sixth to one-quarter of a grain. The result was favorable, yet the recovery was slow.

6. Mr. F., aged about 40 years, a night watchman in a machine shop ; health for several years impaired ; on Saturday evening he was in his usual health, and, before commencing his labors, partook of his supper with a fair appetite ; at 11 o'clock he was attacked with a diarrhœa, which was soon attended with vomiting and cramps ; he persisted in remaining at his post of duty until 5 o'clock, A. M., at which time he was able only by extraordinary exertions to reach his home, but a few blocks distant. Presenting himself at his door for admission, his wife did not recognize his voice, now so husky, and on entering, she was as much surprised at the change in his

countenance as before in his voice. His features were shrunken, his gait tottering, extremities cold, the cramps severe, and the thirst intense. I was summoned at once, and found the pulse rapid and feeble, and the prostration extreme. The evacuations, of which there were two within half an hour after my arrival, amounted to nearly two quarts, and were the purest rice-water in appearance. His condition was such that with my experience in using morphia I dared not apply it. I demanded council, as I wished to make use of a means unusual. I have for the past twenty-five years entertained my present opinion regarding the nature of this disease, and have been desirous of using chloroform to meet some of the indications for which I now use the acet. morphia. This case warranted us in employing any means that offered the slightest hope of benefit. Before commencing the use of the chloroform, the tendency to collapse was so great that I regarded it as my first duty to stimulate the brain and heart to increased action, by sending to those organs a current of blood by gravitation. The head was quickly placed several inches lower than the body. I then commenced to administer chloroform by inhalation and in five minutes he was soundly sleeping; at the end of ten minutes more he was awakened by cramps, and I soon renewed the chloroform and gave him half an hour more of sleep. Nearly an hour had now elapsed since depressing the head, and, on examining the pulse, I found that it had slightly more of firmness, which encouraged me to commence the use of the morphia; this I administered in usual doses, and relied upon it during the remainder of the treatment.

The patient not being responsible for his actions, a strong man was placed in charge of him to preserve his position; this he was inclined to resist for many hours. He recovered slowly but satisfactorily.

7. This case in its features and treatment resembled case 3, and the results were the same.

8. Mrs. G., young, and in good health, and with

habits of diet and living as perfect as may be, was, on the 7th of November, as free as possible from any indications of the presence of this disease, until about 7 P. M., at which time she was actively attacked, and the symptoms rapidly increased in severity. At 10 o'clock, when standing in her parlor, she dropped helplessly upon the floor. I arrived a short time subsequently, and found her almost in a state of collapse. The pulse was rapid and slightly perceptible, the eyes were sunken and expressionless, the countenance pinched, the skin of a purplish shade, and the voice husky. The mother, who was present, remarked that there was scarcely a feature by which she could recognize her as her daughter.

The acet. morph. was applied, and decided relief was obtained within twenty minutes, and in one hour all the untoward symptoms were under control.

9, 10, and 11. In these, the characteristic symptoms were present, but the cases were not so severe as the preceding. The treatment and results were the same.

Besides the cases of cholera described, I was called upon to treat four cases of cholera and many cases of cholera-morbus, during the season. The remedial and other treatment were the same, and the results most gratifying.

In the cases cited, the results were very favorable, and although few in number, the gravity which characterized them would militate against the idea of simple coincidences.

In hospital practice, or in a prevailing epidemic, no such favorable results could reasonably be expected. The faithful nursing and careful watching which are so requisite cannot at all times be secured.

What may be claimed for the treatment, based upon the theory advanced, and pursued as suggested, is, that the death-rate in this terrible disease will be largely diminished, and the amount of suffering immeasurably lessened.

Finally, *the suggestions contained in the foregoing pages can hardly fail to furnish abundant material for discussion*; and if new light shall be thrown upon this obscure disease, by which pain shall be spared or lives prolonged, the effort made in preparing this paper will be amply rewarded.

OVARIAN DERMOID TUMORS.

Read to the Society of Physicians and Surgeons of Chicago, January 23, 1876,

By W. H. BYFORD, A.M., M.D.,

PROF. OF OBSTETRICS, ETC., CHICAGO MEDICAL COLLEGE.

MR. PRESIDENT AND GENTLEMEN :

In presenting this paper to you, I do so with special reference to what I consider a very remarkable case, which recently came under my observation. I therefore begin it with a history of that case.

Mrs. M., twenty-five years of age, was married in January, 1873. She has been delicate from childhood, and since the establishment of menstruation—although this function has been regular as to time and quantity—she has always suffered from pain at the periods.

During the summer of 1872, she had more pain at these times than usual, and in the intervals complained of back-ache and bearing-down sensations, to such a degree as to make it difficult to walk or be on her feet for any length of time. In October of the same year, she was so prostrated as to make it necessary to take her bed. In this condition, at the close of a menstrual flow, she was suddenly seized with greatly increased pain in the pelvis, heaviness, and difficult menstruation. This was followed for a number of days by moderate metrorrhagia. The acuteness of the symptoms slowly subsided, but left her in a state of great prostration and suffering.

As soon as she was able to be placed in a palace car,

she was brought to Chicago, accompanied by her physician, Dr. A. G. Jones, of Lexington, Ill. This was in May, 1873. She was then unable to walk more than a few steps at a time on account of debility and a severe bearing-down sensation.

Upon making a pelvic examination, I found a retro-uterine tumor filling up the *cul de sac* of Douglas. She complained of great tenderness when the uterus and surrounding parts were touched. The tumor was large enough to press the uterus up near the pubis, and fix it in that position. Any attempt to remove the uterus gave her great pain. The tumor could be indistinctly felt at the pelvic brim.

My diagnosis at the time was retro-uterine hematocele in a state of inflammation, and I expressed the opinion that it would probably suppurate. The pulse was accelerated, face flushed, tongue dry, and appetite poor.

I advised her to observe strict quiet in the recumbent posture, prescribed a supporting treatment and regimen, with occasional anodynes as the pain might render them necessary.

She went home, and returned to the city the following August, very much improved in general health. Although she was led to expect and watch for suppuration, she was not aware that there had been any purulent discharge. An examination at this time revealed the facts that the tumor was somewhat larger than when last seen, decidedly elastic, and more globular in form. As a diagnostic measure, with the assistance of Dr. Merriam, I introduced an exploring trochar and evacuated three or four ounces of clear, yellow serum. As the tumor collapsed and partially disappeared, I hoped this operation would prove curative in its results.

The patient left the city, but returned again in July, 1874, eleven months after the tapping. The tumor had commenced to fill again, but I thought it best to wait for further development, and sent her home.

I saw the patient again in April, 1875, and decided that

the tumor was growing, as it could now be felt in both iliac and the hypogastric regions. I advised her this time to return to the city in the autumn, that I might operate for the evacuation and obliteration of the tumor.

She came to the city the 15th of October, 1875, and I found the tumor had grown quite decidedly since last examination. I determined to evacuate the tumor, and establish permanent drainage, with the hope of obliterating its cavity. Accordingly, assisted again by my colleague, Dr. H. P. Merriman, I operated by passing a large, long curved trochar into the tumor behind the uterus. Upon withdrawing the stylet, there flowed through the tube a thick, opaque, pearly-looking fluid, that reminded me of the tenacious albuminoid substance often seen to flow from multilocular ovarian cysts. From twelve to sixteen ounces were thus evacuated. The long canula was left *in situ*, and the patient placed in bed.

The tumor was very much diminished in size, but did not wholly disappear. The same kind of substance continued to flow for four or five days in small quantities. The cavity was washed out through the canula with a solution of chloride of sodium twice a day.

On the fifth day I removed the trochar, and placed in the perforation a large gum elastic catheter, and the cleansing injections were continued through it. Internally quinine, iron and the mineral acids were administered.

The tumor continued to diminish in size, but a constant discharge kept up, although steadily decreasing in quantity. The discharge at first was a greasy serum, with a peculiar odor. This became purulent, but at no time was there fetor of a character to indicate chemical decomposition, and before the death of the patient the quantity was very small in amount.

I could not detect the tumor above the pelvis, and by bimanual examination convinced myself that it was slowly disappearing.

The strength of the patient was well sustained up to

the 1st of December, when she was attacked by slight chilliness, with a moderate acceleration of the pulse. At no time from the date of the operation had the pulse ranged higher than ninety beats to the minute. After the chills it mounted to 105. Tonic treatment, with nutritious diet, was kept up during the whole time.

The second day after the chills occurred, she was seized with diarrhœa. The stools were copious, frequent, watery, and very fetid. Unfortunately vomiting soon supervened, and she was unable to retain food or medicine in sufficient quantities to be of service to her. Great prostration and exhaustion rapidly succeeded, and in spite of every effort to sustain her, she died at midnight, December 25, 1875.

The *post-mortem* examination kindly made for me by Dr. W. H. Warn, revealed a small dermoid cyst that would have held six ounces of fluid—involving the left ovary—containing a roll of fine hair about the size of a pullet's egg. The hair was blond, although that of the patient was very black. It was matted together in a pretty compact mass, and formed of individual hairs from four to eight inches long.

This tuft of matted hair was saturated with the same tallow-like substance that had been drawn from the tumor when punctured, and with heat it could be melted and caused to run from it. The hair was lying loose in the cavity of the tumor, not the slightest attachment could be discovered anywhere. The lining membrane of the tumor presented a uniformly rugous dermoid appearance, and in places was in a state of suppurative inflammation.

At the time of the operation, about eight ounces of fluid was collected in a small earthenware bowl for examination. After standing a few moments, and becoming cool, it was found to be solid, and had assumed a buff color, having very much the appearance of mutton suet.

Upon closer examination, it was found to be oleaginous in all its properties. It melted on the fingers, and

could not be washed off without soap. Heat melted it into an amber-colored oily fluid that was easily poured into a bottle, where it again solidified, and looked like a poor article of olive oil that had been submitted to a very low temperature. It burned through a wick like any other oil, and made a pleasant, bright yellow flame.

I sent a specimen of this substance to Dr. W. L. Atlee, of Philadelphia, who was kind enough to submit it to Dr. Drysdale for examination. Dr. D. says :

“The specimen was of a pale yellow color and odorless. It became liquid at a temperature of 84° Fahrenheit, and remained so at 82°, but commenced to solidify at 80°. Ether dissolves it readily and entirely, except some small flakes of a whitish color. It did not crystallize on cooling or evaporation of the ether.

“*Microscopic Appearances.*—The only distinct cell present was the scaly epithelial. It contains a large number of cells of this character, and remains of these cells partially disintegrated. A few cells of large size were also seen, and a great number of small, obscurely granulated cells, resembling the remains of pus cells. Except these cells, all were indistinct.”

Dermoid cysts are not peculiar to the ovaries. They occur in various parts of the body, but in the ovaries they grow much larger than elsewhere, and the characteristic contents exist in greater quantities.

The cystic walls of the ovarian dermoid tumor are thicker and more dense than in the other varieties of ovarian cysts, and the lining membrane in some of its extent has a modified cutaneous structure—whence the name dermoid.

In tumors of this kind are found sebaceous or fatty matter, hair, bone, teeth, and, though rarely, muscular and nervous tissues. But these different substances are not often all found in every single specimen of this variety of tumor. Generally some one or two of them prevail to the exclusion of the others, as, for instance, bones, teeth and short hair, while in others the sebaceous material and long hair are associated without the bone.

In April last, I removed a tumor from a young Jewess which contained about twenty pounds of thin serum, bone, teeth, and short hair. The bone constituted a reticulated mass, two inches thick, and about eight inches in diameter, attached to the inside of the cyst. It somewhat resembled honeycomb in its arrangement, with interstitial cavities irregularly permeating it in every direction. To the surface of this bony accumulation were everywhere attached a multitude of rudimentary teeth, in appearance and structure precisely resembling the crown and body of the first incisors of a very young child. The enamel was complete, and the dentine beneath, quite perfect in structure. They were attached by a fibro-cellular substance, and could be easily separated by the fingers. I did not count them, but I am sure there were several scores. Among these dentoid bodies was quite a thick growth of short, very fine blond hair, from half an inch to two inches in length. The bone and teeth presented all the microscopic characters of these substances found in their normal relations.

Another ovarian dermoid tumor, removed from a young, healthy girl, at the Mercy Hospital, contained no bone, fat or teeth, but on one side the wall of the cyst was half an inch thick over a space as large as the palm of the hand. On the surface of this thickened portion there grew a tuft of very fine blond hair. Some of the hair was three inches long, but most of it from half an inch to an inch in length. The thickness of this part of the sac was caused by a mass of cartilage arranged in the same reticulated manner as the bone found in the case of the Jewess. There were from fifteen to twenty pounds of serum in this tumor, in which was discovered the granular cell of ovarian fluid.

The cyst, to which your attention is called to-night, yielded, at the first tapping in August, 1874, nothing but two or three ounces of serum, while on the 15th of October, 1875, there was evacuated nothing but a large quantity of sebaceous matter, of which this now submitted for your inspection is a sample.

At the autopsy we found the sac empty of everything but the bunch of hair here exhibited. There is no trace of bone, teeth, muscular or nerve tissue.

After making such research as my sources of information afford, I can find no instance of this kind of tumor in which this fatty matter preponderated. Usually it constitutes but a small part of the contents, the main bulk being serum.

In these specimens, we have something of the manner in which the different substances contained in dermoid tumors are distributed and associated.

The accepted theory of the formation of these tumors may be thus expressed : During early embryonic development a portion of the external layer of the blastodermic membrane, by some accident to the ovum, becomes depressed from the general level of the surface. The surrounding edges of the depression approximate over the depressed surface, come in contact, grow together, and thus enclose a dermoid cavity, in which the abnormal dermic products are generated. As the ovum grows, the adventitious cavity increases in size, and participating in the general genetic influence exerting itself in the whole embryo, its inner surface produces the rudimentary organs and secretions found in it.

When it is remembered that the external layer of the blastodermic membrane is the matrix in which are generated the skin and its appendages, and how extensively it engages in the formation of all the tissues and organs outside the abdomen, this theory will appear quite plausible.

The locality of the accidental blastodermic indentation must determine whether the dermoid inclusion will be in the dura-mater, scrotum, testicle, back of the neck, or ovary.

According to this theory, as well as established facts, this form of tumor is congenital.

In most localities it fails to attain great dimensions. When it is situated in the ovary, however, its growth

is influenced by the great change which comes over that body at puberty, and that continues during the sexual activity of woman. As a consequence of the superior vitality of the ovary during that time, they are excited into rapid growth.

THE RELATIVE POSITION OF CHLOROFORM, SULPHURIC ETHER, AND SULPHATE OF MORPHIA IN OBSTETRIC PRACTICE.

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(Read before the Chicago Medical Society, January 17, 1876.)

The introduction in 1847, by the illustrious Simpson, of Sulphuric Ether and Chloroform, as anæsthetics in midwifery, forms an era in the practice of medicine.

He established rules for their inhalation, and defended their administration, although attacked by many eminent men.

Nearly thirty years have elapsed, and the principles and facts he then stated, have in general been endorsed by the medical world.

The experience of others has modified the use of anæsthetics in labor in some respects. However, this illustrious man will always receive grateful recognition; for, his application of agents, to uses before unknown, has saved women untold pangs of agony. Moreover, his persevering and triumphant defense of the maxim, that *pain is a non-essential element of parturition*, and his splendid practical demonstration of the same, has still further increased our obligations to him.

The experience of the profession in the use of anæsthetics in midwifery, agrees with the conclusions of Simpson, in the following points:

It diminishes the perils, and removes the pains of labor; it husband the strength of the patient, and wards off nervous depression; relaxes the soft parts, thus doing

away with the resistance offered to the expulsion of the head, by the os uteri, vagina, and the muscles of the perineum. It renders recoveries after labor more rapid and perfect ; while its effects do not seem to be injurious to the child.

Anæsthesia is strongly urged in cases of difficult instrumental labor, in turning, when the waters have become drained, in cases of convulsions, rupture of the uterus, etc.

Under the influence of anæsthetics, these operations are performed with greater ease and facility to the physician, and consequently with greater safety to the patient. In such cases it will always be necessary to push anæsthesia to the surgical degree.

The use of sulphuric ether, however, is at present preferred by the profession to that of chloroform ; not merely in ordinary labors, but in those cases of instrumental deliveries, in which anæsthesia is pre-eminently indicated. It is safer, and is free from the objections to which the use of chloroform in surgery is liable. With Elliot, it may be stated that "a man having the misfortune to lose a patient by an anæsthetic, would have more sympathy and approval if he had used sulphuric ether, than if he had selected chloroform."

Even the impregnable position which chloroform has so long maintained in midwifery, must give way before the actual experience of danger, during its inhalation. For Dr. Depaul says that, "accidents from obstetrical administration of chloroform are not unknown. He is in possession of cases in which sudden death has been produced by it. He believes it requires great care in its administration, and in ordinary labors can be dispensed with." "In the New York Obstetrical Society, 1874, Dr. Lusk reported two cases, which came near being fatal from the use of chloroform during labor." (Quarterly Report A. I. Obsterics, May, 1875.)

Elliot found the pulse to intermit, and become depressed under chloroform in one case ; and in another (case 22,

obstetric clinic 1868), his patient experienced alarming symptoms from the use of chloroform in a natural labor.

Although it is unquestionably true, that the pains of labor induce toleration of an anæsthetic, it is not now considered expedient to carry it in ordinary labors to complete anæsthesia; for, moderately administered, it will quiet nervous irritation, restlessness, irregular spasms, and delirium. Furthermore, to avoid inefficiency of uterine contractions which frequently occurs when complete anæsthesia is established, it is sufficient to produce a slight anæsthetic influence, to moderate, without destroying, sensibility; so that labor progresses regularly. It is expedient also to preserve consciousness, so that command of the voluntary powers of the patient may be maintained during the progress of labor.

There are, however, objections to the employment of both ether and chloroform in natural labor, which have received just consideration at the hands of eminent observers. This has induced them to *restrict their administration to cases of instrumental deliveries, and those in which there is some serious complication*. For, ordinarily, these agents may accomplish too much, by diminishing the force and frequency of uterine contractions; and sometimes predisposing to post-partum hæmorrhage. They blot out memory, cut off perception, and lessen reflex irritability, when more or less consciousness is wanted. The results of their administration are feared by most patients, for the many deaths from chloroform in surgical practice, and its consequent rejection by the profession, have become known. Moreover, their administration awakens the solicitude of attendants, and requires the constant attention of the physician to the state of the pulse, breathing and heart. Finally, the stage of excitement, especially that produced by ether, is annoying.

To conduct a given case of labor to a happy termination, we need an agent that does not diminish the strength or intensity of the uterine contractions, but lessens their

painfulness, and one which is also applicable to all periods of labor. We require of it the relaxation of tissues, lessening and overcoming of spasms, production of drowsiness—not quite sleep, but nearly so—that the approaching pain may rouse the patient, who suffers comparatively little.

We possess this agent in sulphate of morphia, (which I have used in these cases, during the past eighteen years.) It diminishes reflex irritability, produces delightful calmness, induces sleep, and does not obliterate consciousness or intelligence. It calms restlessness and spasms, relieves pain, irregular muscular contractions and convulsive movements; it removes congestions by diuresis and diaphoresis; and, above all, labor is not interrupted during its action; nay, uterine contractions are sometimes increased by it, owing to the removal of all irritation.

“It acts primarily on the peripheral ends of the sensory nerves; partly, also, on the sensitive fibres in their course; and probably, also, on the central brain elements. The muscles and the motor nerves suffer no change of function from its action.” (Waldemar Baxt. St. Petersburg, Arch. f. Anat. u. Physiol., No. 2, 1869; Journ. Am. Sciences, Oct., 1869.)

Its administration, when supplemented by frequent sponging of face and hands with cold water and eau de cologne, use of the fan, administration of pellets of ice, and encouragement by comforting assurances, brings ordinary labors, of whatever duration, to a happy termination, without exhaustion of the system, and without the occurrence and consequences of the nervous shock attendant upon delivery, which so much enhance the danger and fatality of childbed.

Nay more; should manual or instrumental interference become necessary—provided a skillful physician has previously superintended the accouchement—we find our patient in good condition, mental as well as physical, ready and willing to undergo the operation. We have

the advantage, if ether can be dispensed with—and in many forceps deliveries and cases of turning it may be omitted—of securing the co-operation of our patient, which is so valuable an auxiliary.

It is, moreover, a fact worth remembering, that when the administration of ether or chloroform becomes necessary, a comparatively small quantity will induce and maintain anæsthesia ; provided, a preliminary administration of a full dose of morphia has preceded it. Anæsthesia is, under those conditions, induced without any initiatory stage of excitement, and is very complete.

It is not necessary to precede the administration of morphia, by venesection, as is insisted by many authorities. It is true that the circulation is more active, and even sometimes becomes exaggerated both in pregnancy and parturition, giving rise in some women to vertigo, dimness of vision, ringing of the ears, sudden flushing of the face, and spontaneous heat over the body and head. But these symptoms, formerly attributed to plethora, are, in reality, evidences of poverty of the blood ; for Andral and Gavarret have shown that its corpuscles are sensibly diminished, and the fibrin and watery portion increased. All of this is characteristic of anæmia and chlorosis ; whilst the increase of blood corpuscles is the essential characteristic of plethora.

These alterations of the blood in pregnancy, are physiological, but may so increase as to become pathological.

We have, consequently, in pregnant women, the different neuralgias, and the same modifications of circulation, which we find in chlorotic and anæmic women. Venesection is, therefore, not to be practiced in ordinary cases of labor. The bearing-down efforts during parturition, undoubtedly disturb respiration and circulation : deep, full inspirations will, however, relieve uneasy sensations, congestion of the lungs, heart, and even of the brain. Tartar emetic, in minute doses, added to the morphia, exerts a happy influence in removing congestion, when present.

My mode of administering morphia during labor, is as follows: A teaspoonful of a solution containing one-sixth of a grain (or five drops of Magendie's solution of morphia) is given whenever the patient complains of unusual pain or irritation, *and then only*. This is repeated, as often as is necessary to insure calmness, comfort and the due progress of labor. The agonizing pains of the last stage are endured with equanimity and fortitude; the patient often sleeping during the short intermissions of pain, provided it has been administered with skill and firmness. From four to ten doses administered at intervals during the course of the labor, generally prove sufficient. Previous to delivery, a teaspoonful of fluid-extract of ergot, with the addition of one-sixth of a grain of morphia, is given; and the patient, after its completion, feels comfortable, is not exhausted, and obtains a few hours sleep.

This mode of administering morphia, will obviate the exhaustion, which is produced by emotion, fear, and shrinking from pain, and which frequently delays labor. Furthermore, *the contractions are sometimes increased in force and regularity, without being rendered more painful*.

Thus administered, it obviates the rigidity of the soft tissues, which is frequently found in women of nervous temperaments, resulting, when not prevented, in tedious labors, which are dangerous to mother and child.

The results of this rigidity are, in the case of the mother, exhaustion of power, augmented pains of uterus, severe cramps, nervous delirium and fever; tumidity of the lips of the os uteri, sometimes followed by inflammation and its sequelæ, laceration of the cervix, uterus or perineum.

In the case of the child: where the liquor amnii has been evacuated, and the os uteri remains undilated, disturbances of the placental functions, and like disturbances in the circulation of the cord, and in the body of the child, take place, producing congestion, asphyxia, and death.

DIAGNOSTIC SYLLABUS OF ROETHELN (GERMAN MEASLES), SCARLET FEVER AND MEASLES.

PREPARED BY DR. J. H. ETHERIDGE.

The accompanying syllabus is submitted for the purpose of pointing out the simplest means of differentiating roetheln from the two diseases with which it is easily confounded, of which two diseases some physicians have even gone so far as to say it is a mixture. Clinical observation shows that roetheln may visit the same person more than once. Measles and scarlet fever are *very rarely* met with in the same individual a second time. As a rule, measles protects against future attacks of measles, and having scarlet fever secures the patient against future attacks of scarlet fever. Roetheln protects the individual against neither scarlet fever nor measles; and as it so nearly resembles the two latter and is so often mistaken for them, it is of the highest importance that the differential diagnosis be readily made. The literature of roetheln is exceedingly limited. All the authorities discoverable have been looked up, and they are quoted in the first column of the syllabus. Scarlet fever and measles are so exhaustively treated of by numerous writers that it is thought sufficient to take the description of mild cases from one or two authors only. Roetheln is such a *mild* disease that it is almost always called very mild scarlatina. It calls for little or no treatment. During epidemics of it prevailing in various parts of the country, charlatans are pleased to call it scarlet fever, and credit for skillful and *uniformly successful* treatment of a very serious disease is sure to follow. The practitioner will perceive that *mild* cases of scarlet fever and of measles are described; this is done in order to present, side by side, the three disorders in their greatest degree of similarity.

The salient points of difference are: 1st, *In the temperature*; 2nd, *In the mode of the appearance of the eruption*; 3rd, *In the characteristic elevation and heightened color of the centre of the patches*; and 4th, *In the manner of desquamation*.

Roetheln, or German Measles.

1ST STAGE—STAGE OF INVASION.

SYMPTOMS.

Slight languor with headache and sometimes nausea and vomiting. In one case clonic convulsions.—*J. L. Smith.*

"Shiverings, nausea, rarely vomiting, itching, redness and pain of eyes with increased lachrymation, sneezing and discharge from nose, cough, sore throat and hoarseness."—*Aitken.*

(In addition to above)—pain in limbs more or less.—*Living.*

(In addition to above.) "Sore throat is a most constant symptom—is a characteristic feature of the disease occurring in the slightest and most gentle cases."—*Patterson.*

"There is usually sore throat."—*Dunlop.*

"In all cases there is sore throat."—*Murchison.*

DURATION.

Eruption appears on 1st or 2d day, usually the 2d day.—*Living, Murchison.*

Appears on 3d or 4th day.—*Aitken, Roberts.*

Appears on 5th day.—*Fox.*

"Some hours, or a day or even a longer duration."—*J. L. Smith.*

Scarlet Fever, or Scarlatina.

1ST STAGE—STAGE OF INVASION.

SYMPTOMS.

Chill, vomiting, epistaxis. The fever, increased heat of skin, headache, prostration and general malaise vary much in intensity, not including case of unusual severity.

Measles.

1ST STAGE—STAGE OF INVASION.

SYMPTOMS.

Lassitude, shivering, fever, catarrh. The mucous membrane of the eyes, throat, windpipe and bronchial tubes are much affected. Eyes watery, lids puffy; dry cough; hoarseness and difficulty in breathing; drowsiness; great heat of skin; frequent and hard pulse.

DURATION.

"Eruption appears on 4th day—seldom earlier—often later."—*Tanner.*

DURATION.

"Average duration, 24 hours. Eruption usually appears on 2d day, (*i. e.*, at any hour after the 24th hour of sickness). Exceptionally it appears, on the one hand, a few hours after the attack, and, on the other hand, it may be delayed 1, 2, 3, or more days after the time when it usually appears."—*Flint.*

Roetheln, or German Measles.

2ND STAGE—STAGE OF ERUPTION.
MODE OF APPEARANCE.

The eruption appears *all at once over the whole body*—is *sudden and general*—is less marked on the limbs than trunk.—*Aitken, Roberts, Fox, Copeland.*

May first appear upon the back, upon the chest or neck, upon the cheek or upon the forehead; travels downward.—*J. L. Smith.*

CHARACTER OF THE ERUPTION.

At first like measles—minute dots, which rapidly assume the appearance of large, irregular shaped patches, varying from three-cent piece to twenty-five cent piece in size.—*Aitken, Living, Murchison, Roberts.*

These patches quickly become "raised above the surrounding skin, especially towards the centre of the patch, and are of a darker red color" at the centres.—*Aitken, Roberts, Fox.*

These patches shade off in color towards the margins till the natural color is reached between the patches.—*Aitken.*

The more severe the case the more is the centre of the patches elevated above the surrounding skin.—*Aitken.*

Scarlet Fever, or Scarlatina.

2ND STAGE—STAGE OF ERUPTION.
MODE OF APPEARANCE.

Usually appears on body and limbs before it comes out on the face and neck. In exceptional cases it appears first on latter situations.

CHARACTER OF THE ERUPTION.

First appearance is in form of dots or specks. These coalesce, forming irregularly distributed patches, which vary in shape and size, having irregular or serrated margins. "In some cases the whole cutaneous surface is covered with efflorescence, presenting the appearance of a boiled lobster."—*Flint.*

Amount of eruption varies very greatly—ranging all the way from slightest possible amount to a bright scarlet hue of the entire surface of the body, no elevation of the skin answering to "centre of patches" is ever noticed. No elevation farther than that we call "goose skin" is ever seen.

Measles.

2ND STAGE—STAGE OF ERUPTION.
MODE OF APPEARANCE.

First appears on forehead and face, and gradually extends downwards over the body and legs and arms.

CHARACTER OF THE ERUPTION.

Comes out in small circular dots like fleabites. These dots run together and form blotches of a raspberry color, and the latter are very prone to assume a crescentic or horseshoe shape, being slightly elevated above surrounding skin.

Eruption is sometimes diffused over the whole body in a confluent form, and "is of a dull, deep red color, offering a contrast to the crimson or scarlet redness of scarlet fever."—*Flint.*

After a time the patches *may* (*sic*!) all unite, and then the skin becomes to the naked eye of a uniform red color, closely resembling scarlet fever.—*Murchison*.
In two cases out of five, this uniform red color was noticed.—*Living*.

DURATION.

"Eruption disappeared in 3 or 4 days."—*Dunlop*.

In proportion to severity: 4 to 10 days.—*Murchison*, *Aitken*.

From 7 to 10 days.—*Living*.

"In no case (of 21 reported cases) lasting more than 8 hours."—*Steiner*, of Prague.

"Usually fades in 4 or 5 days."—*Roberts*.
"Fades out 2d or 3d day."—*Fox*.

"Commonly disappeared on the fourth day."—*J. Lewis Smith*.

DURATION.

Eruption reaches its maximum of intensity and diffusion on third day after its first appearance. This stage varies from 4 to 6 days. Eruption is usually gone at the end of (5th) fifth day. In some cases it persists a day or two longer.

DURATION.

Begins to fade about the 4th day, in the same order in which it came out.

ACCOMPANIMENTS.

Sore throat is *always* a prominent and troublesome symptom in this stage. This fact is *particularly* emphasized by *Aitken*, *Living*, *Murchison*, *Patterson*, *Copeland*.

"In severe cases the hoarseness is so great as frequently to cause entire loss of voice." * * Swelling of the neck ac-

ACCOMPANIMENTS.

Very numerous. Many of them present in a certain proportion of cases—then again they are all wanting. They vary widely in their dangerousness—some being surely fatal, others being quite innocuous.

There may be sore throat varying from a little redness to a destructive degree of

ACCOMPANIMENTS.

Irritability of the mucous membranes all over the body seems to be a characteristic of measles. Hence bronchitis is almost the rule in this stage.

Redness of the eyes is a constant symptom, amounting to inflammation in some cases.

Roetheln, or German Measles.

companies this hoarseness, and is so great that "there is total inability to swallow even the slightest portion of fluid, which generally regurgitates by the nose."—*Aitken*.

Mild inflammation of mucous membrane of throat, mouth, nose and eyes.—*J. L. Smith*.

"There is a combination of scarlatinous angina (sore throat) and tongue, with morbillous (measles) catarrh."—*Murchison*.

"The temperature being always highest on first day of attack, not exceeding 102°, next day falling to 100°, and getting normal on the 5th day.—*Fox*.

"The temperature nearly always *sub-febrile* (99.5° to 100.4°)—sometimes febrile (101.3° to 102.2°)."—*Wunderlich*.

"There is scarcely any constitutional disturbance and the temperature is only slightly if at all raised above the normal standard."—*Dunlop*.

"Slight, if any, rise in temperature."—*Steiner*.

Febrile movement constantly mild in uncomplicated cases, ranging from 98° to 100°.—*Reid, J. L. Smith*.

Scarlet Fever, or Scarlatina.

inflammation. Watery blebs or blisters sometimes appear on the skin.

Fever rather increases after eruption.

Temperature may reach 105.6° or even a higher point. It usually remains continuously high during the eruption (*Wunderlich*) and it is thus "well distinguished from those affections with which, on account of other symptoms, it is most easily confounded, and more particularly *measles and roetheln*."—*Wunderlich*.

Pulse may go to 160 or even 170.

No appetite; sometimes vomiting; constipation in some cases—diarrhoea in others; thirst urgent; delirium, common; integument slightly swollen all over, as is shown when patient tries to close the hand.

Measles.

Giving a cathartic in measles is most unfortunate, sometimes, because of this sensitiveness of the mucous membranes.

Temperature for *one* day in this stage in uncomplicated cases will rise to 106°. It then rapidly subsides to the normal standard, reaching it in 48 hours.

3RD STAGE—STAGE OF DESQUAMATION.	3RD STAGE—STAGE OF DESQUAMATION.	3RD STAGE—STAGE OF DESQUAMATION.
CHARACTER OF THE SCALES.	CHARACTER OF THE SCALES.	CHARACTER OF THE SCALES.
Minute portions of cuticle like scales of <i>fine bran</i> . Always begins towards centre of the eruptive patch and gradually extends to the circumference.— <i>Roberts, Aitken, Murchison, Liveing, Patterson, Dunlop</i> . “Scales on <i>hands and feet</i> are larger, but never reach the size of those of scarlet fever.”— <i>Patterson</i> .	Comes off in branny scales and in large patches. “Occasionally epidermis of the hands is detached entire, and may be slipped off like a glove. This is true also of the feet.— <i>Flint</i> . Sometimes several successive desquamations occur. Frequently accompanied with itching, which in some cases is excessive.	Always in branny scales, not in patches or flakes.
DURATION.	DURATION.	DURATION.
Five days to 12 or 15 days.	Desquamation usually completed in from 10 to 12 days; exceptionally it continues for several weeks.	From 4 to 8 days.

PHLEGMASIA DOLENS AS A SYMPTOM OF CONCEALED INTRA-ABDOMINAL CANCER.

BY HENRY M. LYMAN, M.D.,

PROFESSOR OF CHEMISTRY IN RUSH MEDICAL COLLEGE, AND ONE OF THE ATTENDING PHYSICIANS TO THE COOK COUNTY HOSPITAL, CHICAGO.

In his lecture on Phlegmasia Alba Dolens, Trousseau says: "So great, in my opinion, is the semiotic value of phlegmasia in the cancerous cachexia, that I regard this phlegmasia as a sign of the cancerous diathesis as certain as sanguinolent effusion into the serous cavities."

In a lecture on simple chronic ulcer of the stomach, he also says: "Should you, when in doubt as to the nature of an affection of the stomach, should you, when hesitating between chronic gastritis, simple ulcer and cancer, observe a vein become inflamed in the arm or leg, you may dispel your doubt, and pronounce in a positive manner that there is cancer."

This opinion is fortified by the recital of illustrative cases from the experience of the lecturer. To these, which may be read in detail in the published lectures of M. Trousseau, I can add the history of an interesting case which recently came under my observation.

Late in the month of August, 1875, I was asked to prescribe for a gentleman with whom I had maintained a speaking acquaintance during the past ten years. In early childhood he had suffered with morbus coxarius, affecting the left side, and producing permanent deformity of the joint. There had, however, never been any revival of acute symptoms since childhood, and his health had been good for many years. Passing the greater part of youth and early manhood in Europe, his lameness had necessitated a sedentary life, which afforded opportunity for the acquisition of a superior education and the habits of a cultivated society. Finding his way, at length, to this country, he had settled into the calling of an apothecary, in which he had now reached his forty-ninth year.

Thus introduced, I found my patient sitting in his office one cool day in the early autumn. He had complained since the month of June, of loss of appetite, slight nausea, and a constipated condition of the bowels. His dark eyes seemed unusually bright, and there was about the features a slight degree of sharpness which I had never before remarked. A faint suspicion of impending evil cast a fleeting shadow across my mind, and I made a thorough physical examination which yielded only a negative result. The room was without fire, and as the temperature of the air had been low for several days, I decided in favor of simple functional derangement of the digestive organs, and prescribed accordingly.

About one week later I saw my patient again. He was no better. Had vomited several times; could not drink water without suffering from flatulence and borborygmi. Felt better when the bowels were relaxed. Thought that blue pill and quinine would do him good. I made a second physical examination. Again the results were chiefly negative. The patient was compactly formed and fairly nourished. He experienced no pain in any part of his body. There was nowhere any tenderness on pressure. The posterior third of the tongue was covered with a thin, yellowish coat. The bowels were slightly distended. The pulse was seventy-three per minute, and quite compressible. The tips of the fingers were cool. I could discover no other abnormal symptoms. Examination of the urine exhibited an increase of pigment, but nothing more. I allowed my patient to take a grain of blue pill three times a day, with a saline draught every morning, for about a week, when his evidently failing strength led me to insist upon his retirement from the imperfectly heated atmosphere of his store to the quiet and warmth of his bed.

The symptoms had thus far in no way differed from those which so frequently precede and usher in an autumnal fever; but I was soon convinced that I had to cope with a more serious disease. During the month of

October the vomiting became a daily phenomenon. The intestinal distension was also a source of considerable discomfort, and the intestinal coils were sometimes very clearly defined through the abdominal wall. The bowels were, however, very easily moved, and the patient seemed to derive great relief from three or four evacuations *per diem*. The frequency of the pulse increased to over one hundred beats per minute, but the bodily temperature fell to 96° F., and remained at that point. Before the middle of October I was informed that the vomiting had become stercoraceous; in fact, the ejected matter had an offensive fecal odor, and in appearance was closely similar to the pea-soup discharge of typhoid fever. From this time stercoraceous vomiting occurred every few days.

It was now evident that I had to deal with a case of intestinal obstruction. The regions occupied by the liver and spleen began to grow abnormally resonant, like every other portion of the abdominal cavity. It was hardly probable that the stomach could be the seat of the disease, for the stercoraceous vomit was evidently the product of the small intestines; and the ease with which large injections could be thrown into the colon, and the normal appearance of the stools, pointed to a location at least above the sigmoid flexure of the colon. I felt inclined to believe in the existence of some malignant growth in the omentum which might compress a loop of the intestine, but it was impossible by the most careful palpation to detect anything of the kind.

In this state of perplexity, I one morning discovered that the left leg and thigh of my patient had become swelled, white and shining. Firm pressure over the calf of the leg revealed deep-seated tenderness, and, for the first time, manipulation of the abdomen occasioned slight pain over the internal iliac vein. Remembering the *dicta* of Trousseau, I no longer felt any doubt regarding the nature of the case, and I proceeded to communicate my opinion to an intimate friend of the family. Other

physicians were casually consulted (for the patient enjoyed a large medical acquaintance), and their view of the subject was so uniformly cheerful that it would have been difficult for me to adhere to my opinion had I not learned that they had in no instance discovered or taken notice of the existence of phlegmasia dolens.

Well, to make a long story short, matters went on from bad to worse without the slightest benefit from any kind of medication. The unfortunate man suffered no pain, but he could retain no nourishment, and was evidently starving to death. The countenance became Hippocratic, the body was wasted to a skeleton, and finally, in the last days of November, a brief, colliquative diarrhœa terminated his life. As a consequence of this diarrhœa the abdomen became perfectly collapsed, and I made two examinations by external manipulation of every part of the abdominal cavity. I could not discover the slightest indication of tumor or heterologous growth. The liver had retracted into the upper and posterior region of the hypochondriac space. The spleen could not be felt. The spinal column and the aorta were so evident that one gentleman thought it presented an aneurismal enlargement. Death finally occurred without the development of any new symptom, the mind of the patient remaining clear, though indifferent to his condition, until the last.

On the fifth day after decease, an autopsy was performed. It was thought best to examine the abdominal viscera alone. The peritoneal cavity was found empty. The spleen was firm, dark colored, and measured two inches and a half by one inch and a half. I had no means of weighing the viscera, and can only say it was the smallest spleen I ever saw. The liver was contracted and yellow, as if it had undergone acute yellow atrophy. I do not think it would have weighed over, if quite, two pounds. The pancreas presented no unusual appearance. The kidneys were considerably engorged with blood, but were otherwise of normal appearance. The stomach

was also healthy. The small intestine was empty. Its parietal capillaries were injected with blood, and the ileum was relaxed to the size of an ordinary colon. The mesenteric glands immediately adjacent to the caput coli were as large as small beans. Elsewhere they were not visible. The ileo-cæcal valve was occupied by a scirrhus growth which deformed the head of the colon and narrowed the passage from the small intestine into the large. I could not detect any other macroscopic lesion. A microscopic examination, by Dr. I. N. Danforth, proved it to be a scirrhus infiltration of the sub-mucous connective tissue, involving the ileo-cæcal valve and the intestinal wall for a distance of half an inch on either side of the valve.

ERGOTA AS A GALACTIFUGE.

By C. HENRI LEONARD, M.D., DETROIT, MICH.

Recently I had quite a novel experience in the use of ergota. The story, in short, is told in the caption of this article. Deeming, however, a little prolixity not unacceptable, I give you a somewhat brief *résumé* of the case.

Mrs. —, aged 26, had a rather hurried, otherwise normal, confinement. On the third day the breasts were full; no fever or other abnormal symptom occurred. On the fourth and fifth days there was a free secretion of milk, so much so that the breasts were relieved by manipulation, the babe not being able to take it all. On the afternoon of the 5th day, my patient was doing so nicely that I gave her permission to sit up (bolstered) in bed a few moments. She exceeded my permission, and so held the babe, and "changed" it. She became quite tired, and before lying down a pretty sharp hæmorrhage (uterine) set in. I gave her twenty minims of the fluid extract of ergot, (Parke, Davis & Co.'s manufacture) combined with some simple adjuvants,

twice during the evening, the hæmorrhage then ceasing. On the afternoon of the next day, after being guilty of the same imprudence as on the day before, the flowing again occurred, even more freely than before. I then placed her upon the same treatment, directing four doses daily, to be continued two or three days. She was thus getting about eighty minims of the ergot daily. On the second day of the taking of the drug the secretion of the milk was notably lessened. There was no fever, or other abnormal symptoms made manifest. On the third day the supply was so much lessened, that artificial feeding of the infant was necessary; both breasts being equally deficient in the amount of nutriment.

I was completely nonplussed at this, for my patient, otherwise, was doing as nicely as any woman could do; and in her former nursing period, the supply had, for a long time, exceeded the demand. However, I withdrew the ergot mixture; not because I *then* attributed the trouble to that, but more to satisfy her, as she attributed her trouble to the medicine. Upon a second thought I was inclined to side with the views of my patient, and believe the ergot to be at the bottom of the mischief. My reasoning was, that if it will stimulate the nonstriated fibres of the uterus, intestines, arteries and veins (M Vulpian) to contraction, thus diminishing the blood supply, why may it not, for the same reason, deprive the breasts of their usual amount of blood and thus lessen the throwing off of the milk cells, and diminish the amount of secretion? Further than this, the same action might be conceded as taking place in the walls of the secreting cellules and ducts of the mammæ, and so aiding in diminishing the milk supply—something of the same line of action that is manifest in checking certain watery diarrhœas, even though they (the intestinal discharges) may be more properly classed with transudation rather than secretion.

As a clinical proof of the truthfulness of my reasoning,

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I would state that, in a few days, the milk was again secreted in its normal abundance, and the child (at this writing, about two months of age) receives all the nourishment it needs from its mother. There have been at no time any symptoms of fever, diarrhœa, pelvic tenderness, or anything of a suspicious character in the symptoms presented by the mother, save the one, hæmorrhage, which was readily stopped by the use of ergot.

Nothing in my library gave me any similar account of the action of this drug, neither could I learn, upon inquiry, that any of my friends had experienced the same results from its administration. Some days after this episode of mine, *The Richmond and Louisville Medical Journal* came to hand, and in an essay upon Ergot, by Dr. Hadra, of Texas, I find that he quotes Le Gendre as an authority for using the drug in galactorrhœa; but only refers to it incidentally. However, in the "Clinical and Pharmaceutical Department" of the same number of the above Journal I find the following *excerptum*: "During an epidemic of *secale cornutum*, in the district of Simbirski, Dr. J. Schtscherbinenkoff found that among the symptoms of ergot-poisoning was a diminution, or a complete arrest, of the secretion of milk in lactating women. The same result was found to occur in cows that had been fed on meal which contained ergot, or had been littered with carelessly threshed straw which still contained some affected ears. Dr. S. conceived the idea of employing it as a remedy in case of threatened abscess of the breast, and carried it out in many cases, with great advantage. Two multiparæ, who had suffered at each previous confinement from abscess of the breast, took some of the drug with the happiest result. He has also found the drug useful in cases of 'milk fever,' and also at the weaning of the child, whether at the normal or an earlier period."

This is the extent of the literature upon the subject, so

far as I am acquainted with it. Certainly, if the action of the drug, as witnessed in my patient, is to be anything of a criterion of its reliability as a galactifuge, the customary belladonna, magnesiæ sulphas, and potassii iodidum treatment must be superseded in the treatment of many of the common ailments of our nursing women. Have any of the JOURNAL readers had any similar experience with the drug?

DISINFECTING OVEN IN MERCY HOSPITAL.

By E. ANDREWS, M.D., HOSPITAL SURGEON.

The disinfection of mattresses and pillows in hospitals has been very much neglected. Floors can be scoured, and sheets can be washed, but what can be done with a mattress? Many hospitals have solved the problem by doing nothing. Mattresses which have been occupied by cases of erysipelas, pyæmia, or puerperal fever, were simply laid away to be aired, and then brought into use again, full of deadly fomites for fresh patients—I was about to say victims. By a singular obtuseness, surgeons, who found their wards decimated by pyæmia and erysipelas, forgot their poisoned beds, and gravely asserted that the very stones and bricks of the building were poisoned, and that nothing would do but to erect a new hospital every five years.

Callender, of St. Bartholomew's Hospital, has overthrown this delusion by showing that an old hospital may be managed so as to be safer than any average private house, and that septic influences may be expelled from the building.

But to return to the mattresses. In Mercy Hospital my custom was to place surgical patients on straw mattresses. When a bed was vacated by the recovery or death of the patient, the straw was taken out and burned, and the tick sent to the laundry to be washed. It was then

filled with new straw, and laid away ready for use. The pillows were ripped open and the feathers renovated by boiling hot steam, and the pillow ticks washed. By these, and other precautions, disinfection was well accomplished, and pyæmia was almost unknown in the institution. However, the steaming of feathers, the emptying, washing and filling of ticks, and the burning of straw, are troublesome to the attendants, and apt to be neglected, unless constant watchfulness is kept up by the surgeon. To render the disinfection more easy, I have since adopted the plan pursued with so much success in St. Bartholomew's Hospital, London, viz.: the baking of every bed and pillow which has been used by a surgical patient. Dry heat destroys fomites just as effectually as boiling water, and is far more convenient. To accomplish this, the hospital has constructed a simple steam oven on the following plan :

A platform or stratum of parallel steam pipes is made, a little larger than the dimension of a mattress, constituting the foundation. Eighteen inches above this another stratum of pipes is laid, parallel to the first. On the top of the under stratum a floor is laid of galvanized iron, and the whole apparatus enclosed so as to confine the hot air, and convert the space between the strata of steam pipes into a sort of oven. The enclosure has a door the whole length of one side which lets down for the insertion of the articles to be disinfected, and the pipes are connected with the steam boilers which heat the building. When in use, the door is opened, the mattress and pillows are shoved in, the door closed, and the steam, which has a temperature of about 250° Fahrenheit, is let into the pipes. This makes a strong baking heat, and effectually disinfects the beds.

No. 6, 16TH ST., CHICAGO.

Editorial.

We are sorry to see that the *Medical Press and Circular*, a worthy English cotemporary, has been the subject of gross imposition by its "American Correspondent." A few quotations will show the spirit of the whole communication.

The correspondent sends the following about Chicago :
 "The Medical Colleges of this city are now holding their commencements. In other words, they are now in the act of sending forth their annual quotas of legitimized murderers to butcher and poison the human race. * * It is said that one of the medical colleges has never plucked a student, every one who paid received his diploma. * * In the interests of the health of the people every medical college should be indicted—and its doors closed. * * The facility with which degrees can be obtained is extensively taken advantage of by clerks, artisans, etc. I am *credibly* (?) informed by independent, disinterested, trustworthy persons, that dry-goods clerks, post-office clerks, letter carriers, etc., buy a book or two and study at home of evenings. When these parties believe they know the book sufficient to answer by rote a simple common-place question or two of a professor in one of the colleges, they appear before the examiners and of course pass. * * *

"The medical profession of Chicago is become vile. Physicians are not respected. Why should they be? They are, with few exceptions, shamefully, fearfully, criminally ignorant. They are ever making the grossest blunders in practice. * * * We have been assured, and our own experience confirms the assertion, that there are men practicing medicine in this city (Chicago) for periods ranging between one year and twenty years who could not tell where the human heart is situated."

These are a few extracts from a communication in the

Medical Press and Circular, Dec. 29, 1875. They will give the reader a pretty good idea of its contents. We do not expect to notice the communication as it might very properly be noticed ; because we feel mortified and not angry, that it could by any possibility have found its way into a respectable medical journal. We are not ashamed of the revelations made in the letter, because there is no truth in them, and we have too much respect for the good sense of the editor of the *Medical Press and Circular* to entertain in the remotest manner the idea that he believes one of the quotations above made, to be applicable to the regular profession of Chicago. Believing this much, have we not reason to be mortified that an influential medical periodical should even unwittingly lend its pages to the vile use of falsifying and consequently injuring the profession by which it is supported ?

Invectives seldom embody truth—they are born of envy and hate, and while hot with anger they consume the subject from which they emanate, their exaggeration is too easily discovered to injure the object at which they are aimed. When they are found in a medical journal they are out of place, and especially when their object is the medical profession.

There are three medical colleges here : Rush Medical College, Chicago Medical College, and the Woman's Hospital Medical College. We can assure the editor of the *Medical Press and Circular* that the quotations above made are not applicable to either of these institutions, and that his correspondent has not only imposed upon him, but we have good reason to believe has been grossly imposed upon himself. If the correspondent has visited Chicago he has not associated with the better class of those practicing medicine here ; he has kept bad company, and lacks the discrimination necessary to keep him out of it.

The correspondent indulges in *personal* abuse in one instance, and in doing so, gets as far from the truth as

in the above quotations. In speaking of the selection of professors, he says, "A good example is afforded by the Woman's Medical College of Chicago, where one Sarah Hackett Stevenson, immediately after graduation *at the end of twenty-one weeks of study*, is appointed to the chair of physiology."

Mrs. Stevenson did not graduate until the end of three full years of study, one of which was spent in the schools of Europe, and a good part of the time under the tuition of Huxley and Tyndall.

Many of the quotations made in this editorial, were by the correspondent derived from the *Chicago Times*. This does not lessen his responsibility for them, as he ought to have been sure of their truth before he endorsed them with such venomous recklessness. We must say, in conclusion, that the *Medical Press and Circular* has placed itself in a false position before the profession by admitting such a base fabrication to appear in its pages, and we believe it to be the duty of its editor to purge himself of complicity in this ungentlemanly attack upon the medical institutions and members of the profession in Chicago.

Correspondence.

The following contribution to the Library of the Chicago Medical Press Association from Dr. G. H. Tebo, Mt. Sterling, Ill., is hereby acknowledged with great pleasure: Eberle's Therapeutics, 1842. Graves' Clinical Lectures, 1842. Good's Study of Medicine, 1836. Graham's Chemistry, 1843. The Northwestern Medical and Surg. Journal, 1851, 1852, 1853, 1856. The Chicago Med. Journal, 1859, 1860. The American Journal Med. Sciences, 1854, 1855, 1856, 1857. The Medical News and Library, 1869. Seventy pamphlets and journals on various topics.

The officers of this Association wish to keep constantly before the profession the fact that any and all books, journals, pamphlets, monograms, etc., on medicine will be carefully preserved for reference, and that it is their earnest desire to complete sets of periodicals, such as are mentioned above. The consummation of this desire will give to the metropolis of the West the most complete medical library this side of the Atlantic cities. Every regular physician in Chicago and elsewhere being eligible to membership in this Association or to admission to the books of the library, is most cordially invited to consider the invitation to send books and journals to the undersigned (by express at his expense) for the Association, a personal matter, and to forthwith contribute all the old medical literature which he has practically cast aside or is to consign to the waste-paper basket or the flames. Every year a great deal of material, valuable in the forming of the contemplated library—worthless taken alone—is destroyed; *such* material is what is wanted. Many physicians have full years of journals tied up and stored away on the top shelves of their book cases; these bundles are never noticed or referred to. They also have old text books which they never refer to, in these latter days of better books. They also have many a bundle of old printed lectures and pamphlets, whose titles even they've forgotten long ago. All such literature, useless to the owners, this Association will prize highly and will thankfully receive. Gentlemen, will you not take down such books and ship them to Chicago where they will be preserved, and you thus become contributors to one of the grandest libraries in our country?

J. H. ETHERIDGE, M.D.,

No. 240 WABASH AV.,

Secretary Medical Press Association.

Summary of Progress in the Medical Sciences.

I. PHYSIOLOGY.

1. *The Urine of New-born Infants.* PARROT AND ROBIN. (*Med. Times & Gazette*, London, Jan. 22, 1876.)

The following are the conclusions of a paper presented by MM. Parrot and Robin to the Académie des Sciences, (*Gaz. Hebd.*, January 14), "On the Normal Urine of New-born Infants, with Applications to Physiology and Clinical Medicine." 1. A new-born infant passes four times more urine than an adult, by kilogramme of its weight. 2. Under quite exceptional circumstances (as the urine of the first day, defective or faulty alimentation, etc.) the urine may furnish a very slight deposit, consisting of crystals of uric acid, of oxalate of lime, or urate of soda. Vegetable ferments seem to be more rapidly developed in it than in the urine of the adult. 3. It furnishes a neutral reaction with litmus. Acidity of the urine generally indicates that a too long interval has elapsed between the sucklings, and in some cases may point to a pathological condition. 4. The urine contains, on a mean, 3.3 grammes per litre of urea, or 80 centigrammes per kilogramme, in an infant of 3850 grammes; but an infant from 11 to 30 days old will render, in the twenty-four hours, about 90 centigrammes of urea, or 23 centigrammes per kilogramme of its weight. 5. The age, the weight and the temperature notably influence the quantity of urea. Before attributing differences that may be observed to a pathological condition, we must assure ourselves that the excess of urea surpasses the limits which we have assigned for variations due to these causes. 6. There exists a constant relation between the quantity of urea and the color and reaction of the urine, so that the inspection of these two characters enables us to estimate clinically the proportion of urea. 7. Traces of uric acid exist normally in the urine of the new-born, but they escape all dosage. The urine of the first day contains more. Extractive matters are not chemically appreciable, but the urine contains hippuric acid and allantoin. 8. Under no circumstances does the normal urine of the fœtus or the new-born contain albumen, and it exerts no reducing action on Barreswill's liquid. 9. The new-born consumes in the twenty-four hours, and per kilogramme of its weight, twice as much nitrogen as the adult; but it renders six times less by the urine, although it fixes at least as much oxygen. It therefore burns less, while absorbing more, of the combustible, and at least as much of the comburant. This excess of assimilation, demonstrated experimentally, is in harmony with the daily increase of weight—an increase which part of the oxygen absorbed contributes to. 10. When the urine becomes modified in any of its characters, beyond the limits traced, we should first direct attention

to irregularity of alimentation, and then to morbid conditions. 11. Sometimes attention to the urine enables us to appreciate a special pathological condition, or a particular symptom, as œdema, diarrhœa, etc. 12. Such attention may sometimes enable us to foresee the near advent of accidents, such as œdema, athrepsia, etc., for lesions of nutrition precede the external signs of these affections; and the child is already ill, although no symptom reveals its condition, of which the changes in the urine are the index.

II. SURGERY.

1. *The Operation for Hydrocele under Antiseptic Treatment.* Prof. VOLKMANN. (*Berl. Klin. Wochenschr.*, 1876, No. 3.)

No operation, Prof. V. thinks, is better adapted to convince any skeptic observer of the great usefulness of the antiseptic treatment than the operation for hydrocele. This apparently trifling operation was usually followed by an uncommonly violent reaction and the patient did not recover till after several weeks of profuse suppuration. Now, under the antiseptic dressing, the testicle heals in per primam between the edges of the gaping pouch of the tunica vaginalis; a small narrow strip of its surface is exposed, which soon is covered by granulations and concealed in the cicatrix. Not the slightest trace of any local reaction can be observed, and on the fifth or sixth day after the operation the patient can leave the sick-bed and walk about, to be further on treated as a dispensary patient. V. has thus treated seventeen cases without having had any ill success. In not a single case had he observed phlegmon or an inflammatory œdema; in six cases there was no fever at all; in three cases an increase of the temperature was noticed only once, *i. e.*, on the evening following the operation; in four cases very moderate fever (temperature not exceeding 39° C.), and in two cases only the thermometer showed a temperature of 40° and 40.5° C.

The complete obliteration of the cavity, *i. e.*, a complete agglutination of the two surfaces of the tunica vaginalis, was noticed at the first change of the dressing in sixteen cases; no secretion could be squeezed out when the dressing was removed. In one case only the agglutination did not take place all over, a small pouch was left, into which a drainage tube was inserted, but after a few days the secretion ceased, the tube could be removed, and the patient recovered as fast as the others.

During the operation, as well as when changing the first bandages, all the precautions required by the truly antiseptic method were strictly observed. The genitals were shaved and thoroughly washed with a watery solution of carbolic acid. Under the spray the sac was opened by a large incision; the cavity was rinsed out with a watery solution of carbolic acid (3 per cent.), and under a continued spray the tunica vaginalis was carefully and accurately stitched on to the skin. For these sutures—and 15 or 20 of them were usually applied—Volkmann used the finest

silk; bleeding arteries, no matter how small, were ligated with catgut. The subsequent dressing had to accomplish two purposes, to wit, it should, by a strong and continuous pressure, bring about a smooth and accurate adaptation of the tunica vaginalis to the testicle, while at the same time, it caused the wound to gap, and it should be antiseptic. The cool spray constantly applied while the stitches were put in, and the repeated washing with a cold lotion of carbolic acid in the most cases, excited a strong contraction of the scrotum and caused the desired diminution of the cavity.

The wound then having been washed once more, the scrotum was wrapped up in a number of loops of carbolized gauze, each loop about two to three inches wide; these strips being covered by a large piece of gauze the whole dressing was secured in its place by roller-bandages of carbolized gauze. To this end, the whole lower abdominal region must be bandaged up, and in order to make the dressing really safe, great care must be taken in filling the folds between scrotum and thigh with antiseptic cotton, held in by the carbolized gauze roller. The first dressing remained undisturbed two, three, four days, and sometimes even longer. After two or three changes, the adhesion of the tunica vaginalis was so firm that Lister's antiseptic dressing could be abandoned for a single layer of salicylic cotton, wrapped around the scrotum and held there by a simple suspensory bag. With this dressing the patient could leave the bed and walk about.

2. *New Sound and Extractor for Urinary Calculus.* WAITZ. (*Berlin Klin. Wochenschr.*; *Centralb. f. Chir.*, 1876, No. 4.)

A London dentist suffered from all the signs of a calculus in the bladder, yet the physicians were unable, by sounding, to discover the stone. He then constructed for himself a sound to find the stone, and an instrument to remove it, and both appliances proved a perfect success to him. The sound was coated with well polished lead, and then blackened by an immersion into a solution of nitrate of silver so that the slightest touch of a hard body would leave a mark on it. By this instrument the presence of a very small calculus was proved. For its removal he employed a fine rubber tube with a funnel-shaped mouth at one end. A silver catheter open at both ends was slipped over that tube in such a way that the rolled-up funnel was near the internal end of the catheter and this end closed by a plug of cacao butter which would melt as soon as it arrives inside of the bladder. The catheter introduced, the rubber tube was pushed on, until its funnel could fully open itself in the cavity of the bladder. The funnel expanded, the urine began to pass through the rubber tube, and the current thereby created in the bladder carried the small calculus into the funnel-mouth of the rubber tube. When the urine ceased to flow and the rubber tube was withdrawn, its funnel closed itself over the calculus carrying it along, and at the same time, protecting the mucous membrane of the urethra against being wounded by the stone.

Such a tube might be very useful for removing the sharp fragments of stones after lithotripsy.

3. *Abdominal Sections for Intussusception.* (*The Lancet*
N. Y. Med. Record, Feb. 26, 1876.)

At a recent meeting of the Royal Medical and Chirurgical Society, three papers were read upon this operation.

Mr. Howard Marsh related a successful operation, performed by himself on an infant seven months old. The child had been complaining for thirteen days.

The bowel was found projecting two inches beyond the anus, and the ileo-cæcal valves could be seen at the extremity of the protrusion, while in the abdomen a firm cylindrical tumor was felt. Insufflation and distension of the large intestines with lukewarm water, failed to reduce the intussusception. Chloroform having been administered, the abdomen was opened to the extent of two inches in the median line, just below the umbilicus. The intussusception was reduced by first withdrawing the bowel from the abdominal cavity. At least one-half of the colon and an equal part of the small intestine were invaginated. The wound was closed with hare-lip pins and superficial sutures. No bad symptoms followed.

Mr. Marsh was of the opinion that in this case the intestine was merely invaginated for thirteen days, and that inflammation set in twelve or fourteen hours before the operation. All other means failing, he urged the necessity of undertaking the operation, (1) in acute cases of not more than twelve or fourteen hours duration; (2) in chronic cases in which there had been no symptom of inflammation or strangulation of the intestines.

The second case was under the care of Dr. Hilton Fagge and Mr. H. G. Howse. This case, an adult with intussusception, without symptoms of strangulation, had inflation performed three times unsuccessfully. Mr. Howse opened the abdomen through the umbilicus. The length of the invaginated bowel was eighteen inches. The patient recovered without a bad symptom. In this case, hæmorrhage from the bowels was absent, and in their remarks the two gentlemen showed that it was of great importance not to delay the operation till hæmorrhage occurred.

Mr. Hutchinson related a third and fatal case where the operation was performed upon an infant six months old. The intussusception involved the whole length of the colon and the ileo-cæcal valve. Owing to difficulties encountered in replacing the intestines, punctures were made in two or three places, with a hare-lip needle. Death occurred from peritonitis six hours later. Mr. Hutchinson attributed the fatal issue to the punctures.

4. *Abdominal Section for Intussusception.* (*The Doctor*, Feb. 1, 1876.)

The paper, after reviewing at some length, the discussion at the Medico-Chirurgical Society, quoted above, mentions some cases of obstruction of the bowels from various causes that have been recently related in various periodicals. This operation for intussusception in properly selected cases

will be as fruitful in its results as ovariectomy has been. The triumphs of the latter, however, having paved the way for the operation in question, the latter will not, in its onward march to a more settled place amongst operations in surgery, meet with so many obstacles as did its pioneer—ovariectomy.

Mr. Royes Bell, at King's College Hospital, performed in October, abdominal section on a boy sixteen months old for intussusception following diarrhoea. It was impossible to liberate the intestine by traction, either at the time or on post-mortem examination, for the case ended fatally, although an artificial anus was made at the wound. There were but few adhesions.

Mr. Warren Tay has treated cases by injections of water or air while the child is held up by the heels, as advised by Mr. Hutchinson.

Dr. B. F. Seabury records a case of recovery in the *Boston Med. and Surg. Jour.*, of Dec. 2nd. It occurred to a man aged 49 years, and lasted eighteen days, when sloughing took place and a portion of the ileum fourteen inches long was discharged, after which the patient made a rapid recovery.

Dr. Eberhart relates a similar case in *Philadelphia Med. and Surg. Rep.*, of Jan. 8. In this case a portion of small intestine, eighteen inches long, was found. The patient recovered, and took carriage exercise for nearly three months, when constipation, followed by peritonitis, set in and proved fatal. The omentum was found to have adhered in such a manner as to form part of the channel of the bowels.

M. Ortille, of Lille, reports in the *Abeille Médicale* his second case of intussusception cured by swallowing shot mixed with oil.

Two cases are reported in the *Canadian Journal of Med. Science*, in which Dr. Ross tried inversion, combined with the use of quicksilver. In the first of these, other means having failed, the child, aged 18 months, was inverted by an assistant, and five ounces of metallic mercury injected into the rectum, the assistant being desired to shake the patient up and down for about ten minutes, then to incline her buttocks to the right, gradually bringing the body to the horizontal position upon the right side, then turning her upon her face, keeping up the shaking motion. This had probably occupied twenty minutes, when the child's countenance manifested relief. In the erect position the mercury escaped into a basin. Permanent recovery ensued.

In the case of another child, aged 18 months, Dr. Ross adopted the same treatment as in the previous case and with equally good results. The treatment occupied about half an hour.

5. *Anæsthetization During Sleep.* (*The Canada Medical Record*, Feb., 1876.)

Dr. Cluness reports in the *Pacific Med. Journal* two cases of successful chloroformization during sleep.

The first case was that of a little girl, aged eight years, in whom, as a

sequel to acute otitis media, the mastoid cells of one side became inflamed. Chloroform was administered upon a four by six piece of surgeon's lint, held as near the child's mouth as possible during sleep without coming in actual contact. Not the slightest effort was made by the child to avoid the inhalation of the anæsthetic, and in a few moments she was well under its influence.

The second case was on the person of a little girl $2\frac{1}{2}$ years old, for the purpose of removal of supernumerary toes.

6. *Fracture of Neck of Femur and both Trochanters.* WELMART. (*Louisville Med. News*, Jan. 29; *La Presse Méd.*, *Belge*, No. 14.)

This case is of peculiar interest, owing to complete recovery, although it occurred in a patient aged seventy-two. The fracture healed in ten weeks, without the use of any bandage, with slight shortening and some impairment of rotation and mobility. The patient died about six months after from marasmus, when the diagnosis and result were confirmed by dissection.

7. *Operation for Relief of Phymosis.* ANGER. (*La France Méd.*, No. 11.)

The outline of the prepuce, designed to be left upon the penis, is traced with ink. An assistant with two pairs of forceps, one above and one below, lightly holds the prepuce without too much traction, which would make the skin yield more than the mucous membrane. A double waxed thread is then passed tightly around the prepuce over the line traced by the ink. With this thread serving as a conductor, the skin and mucous membrane are cut with a pair of curved scissors at a single stroke, in front of the ligature.

The resulting advantages are said to be: absence of hæmorrhage, exact and rapid (two days) union of the edges of the skin and mucous membrane, and the doing away with the necessity for etherization and special instruments.

8. *Two Cases of Salivary Calculi.* PIRONDI. (*La France Méd.*, No. 11.)

A man, 36 years old, had an abscess open spontaneously in the mouth to the left of the inferior maxilla. A purulent saliva thereafter continued to flow, with swelling and interference with speech and deglutition. Broquier found a sublingual calculus, enlarged the wound and removed a stone as large as an almond. The orifice of Wharton's duct was intact, and communicated with the *bed* of the calculus.

A naval captain had a large salivary stone in the left Whartonian duct. The mucous membrane was completely glued to the calculus, while the orifice of the canal was intact, though slightly dilated. Pirondi largely incised the membrane (respecting the orifice) in the direction of the antero-posterior diameter (longest) of the stone. Using an inflexible spatula as a lever, he then enucleated the stone which was oblong and

weighed more than 8 grammes. Its largest diameters were 4 and 2½ centimetres. In its lowest portion there was a somewhat deep canaliculus which, extending for 4 millimetres, nearly covered the gland.

Both cases were promptly and perfectly cured without any subsequent interference with the function of this part of the salivary apparatus.

9. *Extraction of a Hair-pin from the Female Bladder through the Vagina.*
PANAS. (*La France Méd.*, No. 17.)

A girl, 19 years old, introduced a hair-pin into her urethra, so deeply that it could not be withdrawn. Cystitis, hypogastric pain, frequent desire to urinate and burning sensations of the part ensued. After the patient entered hospital, an unsuccessful attempt was made to remove the foreign body by the lithotrite. The bladder was empty, and, the patient not being under the influence of anæsthetics, great pain was endured.

The next day, chloroform was administered, the bladder injected with tepid water, and the lithotrite again introduced. The hair-pin was readily detected upon the floor of the bladder and near the orifice of the urethra, in a vertical position. The jaws of the instrument were directed toward one extremity of the pin, in order to change its position and bring the rounded part in front. It was slightly displaced but not to such a degree as to admit of its extraction.

Panas then withdrew the lithrotite and inserted a pair of dressing forceps, seizing the pin at its presenting part. At the same time with left index finger in the vagina, he felt the points of the pin through the vesico-vaginal partition, directed backward. While pressing with the finger upon these points, in order to facilitate the extraction, one leg of the pin pierced the vesico-vaginal septum and entered the vagina. The operator seized the leg with a pair of dressing forceps, separated it widely from its companion, using the septum as a fulcrum of leverage, and, converting the hair-pin into a piece of straight wire, easily extracted it from the vagina.

The cure was complete, no lesion of the septum or other part remaining.

Denucé once extracted a crochet needle from the female bladder in the same manner, no fistula resulting. Panas suggests that, in case of necessity, both legs might be forced through the septum, the pin straightened, and then removed, the two points of puncture being no more dangerous than one.

III. OPHTHALMOLOGY.

1. *Tattooing the Cornea.* DR. HOWE. (*Transact. Med. Soc., County of Erie.*)

At the fifty-fifth annual meeting of the "Medical Society of the County of Erie," Dr. Howe presented an essay on the operation of tattooing the cornea. (By the way, "*cornu punctum*," which the author suggested as a more descriptive name, is neither more descriptive than tattooing, nor is it a very felicitous construction, since "*cornu*" and "*cornea*" are the names of two entirely different objects.)

The operation which first has been cultivated methodically by Wecker, of Paris, is very simple; it consists in pricking a little coloring matter into the corneal substance. The principal object of this procedure is its cosmetic effect in disguising an unsightly white spot (leucoma) in the cornea; if the blemish is in the centre of the cornea, opposite the pupil, it is to be changed into a black spot; if it is in a peripheric portion of the cornea, it ought to be given the color of the iris as nearly as possible. As to the coloring matter, it must be permanent, and its use must not be attended by any subsequent irritation of the cornea. As for a black color, Indian ink is the best substance; the various tints of the iris may be imitated by the use of blue ink, or any mixture of blue and black, black and red, or all three combined. Wecker used a single broad needle, with a groove on one side, for pricking the coloring substance (previously rubbed down with water to a thick paste) into the cornea. A number of modifications have since been suggested and used, the principal object being to increase the effectiveness by multiplying the needles. But though theoretically it appears perfectly correct to increase the number of pricking points in order to save time to the surgeon and pain to the patient, yet practically this multiplication is very limited, because, while a single needle will readily puncture a substance, a number closely together act like one blunt surface. The author therefore recommended an instrument which consisted of two ordinary needles placed side by side, and having a guard so near their extremity as to prevent their passing through the cornea. With most ophthalmic surgeons this precautionary stop near the points of the needle might perhaps be unnecessary, but it seemed anyhow advisable, since such accidents as piercing the cornea had happened in the author's experiments, and also in Guy's Hospital. The operation can not be done on every eye disfigured by a leucoma; in order to be safe and successful, and not to be followed by a dangerous inflammation of the cornea or iris, these rules must be observed:

1. That we do not attempt the coloring of too large an extent either at one sitting, or altogether.
2. That the eye be free from any inflammation.
3. That the relative position of the various tissues be not so altered as to have an inflammation readily induced, *e. g.*, extensive adhesions of the iris to the corneal cicatrix.

2. *A Case of Daily Recurring Total Blindness of One Eye.* DR. L. KOENIGSTEIN. (*Klin. Monatsbl.*, Sept., 1875.)

June 29, Dr. K. was consulted by a lady who gave the following history: Two evenings ago, towards six o'clock, she suddenly noticed a dimness coming over her right eye, and covering the left eye she could see absolutely nothing. This monocular blindness still continued when she retired, but on next morning the sight of the right eye was just as perfect again as ever, and continued so until six o'clock P. M., when the blindness recurred as on the preceding eve. The lady aged 31 years, in good health, has never had any serious illness. An examination failed to discover any marked difference in the external or internal appearance of the two eyes, excepting that the visual power of the right eye was somewhat weaker than that of the left. At 6 P. M., the patient felt a violent tearing pain in the supraorbital region, attended by black rings passing over the right eye from the temple toward the nose; these rings steadily grew larger until they filled the whole right side of the visual field. This entire change took about half a minute. Pressure on the supraorbital region was painful. The right eye did not perceive even the light thrown into it by the ophthalmoscope, but the right pupil responded to the light as readily as the left; and the ophthalmoscope also then failed to reveal any morbid condition which could account for the total amaurosis. Patient had a sound sleep, but on request she stayed awake that night, and about one o'clock she remarked to the doctor that she felt as if a black cloth were being removed from her right eye. And while a few minutes ago the right eye was totally blind, it then could discern light from shade; after ten minutes she could locate the light of a candle at a great distance, and after a short time she began to see the objects in the room.

The patient was ordered ten grains of quinine daily, in three powders, one to be taken half an hour before the attack, one during the same, and the third after it. Under this treatment the amaurosis set in later every day, while the sight returned regularly at one o'clock; and finally, on July 24, the amaurosis occurred for the last time at 12 P. M., to return no more. That the "blind spells" gradually grew shorter and at last disappeared after the administration of quinine does not seem to be a matter of mere coincidence, as the following schedule may show:

June 27, 28, 29, 30. Expectant treatment, amaurosis began regularly at 6 P. M.

July	1,	2,	3,	4,	5,	6,	7,	8,	9.	} Quinine, ten grains daily.
Amaurosis at	6.30,	7,	7.30	8,	8.30,	9,	9,	9,	9.	

July	10,	11,	12,	13,	14,	15,	16.	} Quinine, 20 grs. daily.
Amaurosis at	9.15	9.30,	9.45,	10,	—	—	11.	

July 17, 18, 19, 20, always at 11 P. M., until dose of quinine was increased to thirty grains pro die.

July	21,	22,	23,	24.
Amaurosis at	11.15,	11.30,	11.45,	12.

3. *Ophthalmia Neonatorum*. S. C. AYRES. (*Cincinnati Lancet and Observer*, 1876, No. 1.)

In order to illustrate the importance of an early treatment of this disease, the author gives the statistics of one hundred cases treated in private practice, and of one hundred cases treated in the Cincinnati Hospital. We might reasonably expect, in the class of patients which we find in the hospitals, to have more trouble in the management of such a disease as purulent conjunctivitis than we would have in private practice. But the result of his statistics shows that in not a single one of the hundred hospital cases did any corneal complication arise, and all recovered with good vision, while in private practice 58 cases only were free from corneal complication and recovered with perfect vision, while in 42 the integrity of the eye was more or less impaired; six of them were hopelessly blind in both eyes, and five in one eye, from ulceration and sloughing of the cornea. The treatment pursued in both classes of cases being practically the same (cleansing, instillations of solution of alum or silver every hour, and application of a solution of nitrate of silver gr. v to xx ad oz. j every morning), the better result obtained in the hospital can be attributed to the fact only that the inflamed eyes of the infants receive attention and treatment *immediately*, while in private practice they are too often neglected by the parents and by the family physician too. And yet there is nothing in the treatment which any intelligent physician could not carry out successfully. "If purulent conjunctivitis were treated as promptly and carefully as other infantile diseases are, we would have fewer blind in our asylums, and much less suffering and distress to the world."

4. *Castor Oil as a Menstruum for Dissolving Atropia for Application to the Eye*. DR. J. GREEN. (*Trans. Am. Ophthalmol. Soc.*, 1875.)

"Dissolve one grain of atropia in two minims of strongest alcohol, and mix with fresh castor oil, in any quantity, from half a drachm or less to an ounce, according to the strength desired. It is well to expose the stronger solutions for a short time to a gentle heat in a water bath, in order to drive off a part of the alcohol, which otherwise renders the application somewhat irritating to the surface of the eye. In this way it is easy to prepare a clear and permanent solution. I have found it to be practically unirritating to the abraded or inflamed cornea, and I believe that it is occasionally to be preferred to the aqueous solution of the sulphate. It has seemed to be most useful in recent abrasions and painful phlyctenulæ and ulcers of the cornea, with or without iritis. In case of photophobia, with excessive flow of tears, I have often applied it to the conjunctival surface of the everted upper lid—a plan which seemed to ensure a longer contact of the remedy with the cornea than is the case when aqueous solutions are dropped into the conjunctival sac."

IV. PATHOLOGY AND PRACTICAL MEDICINE.

1. *Intestinal Obstruction due to a large Biliary Calculus.* MARTIN and BROUARDEL. (*Le Progrès Méd.*, No. 2.)

A woman, 78 years old, had obstinate constipation and vomiting of bile which soon become stercoraceous. There was no fever. Croton oil was administered with enemata, without effect. The pulse soon became small, 110 to the minute, eyes hollow, face choleric, extremities cold, prostration profound. She could not rise in bed; hiccough supervened; the stomach tolerated ice only; the abdomen became distended, and through it the intestinal loops could be distinguished. Palpation was not very painful except at the level of the right iliac fossa and transverse colon, where sensibility was greatly exaggerated. The rectum was completely empty. Four large enemata were again tried and no evacuation followed.

The next day a voluminous cylindrical swelling was detected in the right inguinal fossa, which led to the supposition that the obstruction existed in the cæcum. Massage and more injections; an intense hæmorrhoidal congestion only followed.

The next morning the patient passed an indurated and voluminous cholesteric calculus. Ten other smaller concretions were passed during the day, and about six litres of a substance varying in consistency from softness to extreme hardness (scybala.) A few days sufficed to complete the cure.

Eight days after its expulsion, the large calculus weighed eighteen grammes and measured in millimetres forty-three, twenty-three and sixteen; circumference, nine.

It was thought it had passed directly into the intestine by the adhesive process, without traversing the biliary passages and the small intestine. The latter course would almost assuredly have produced a fatal result.

2. *Intermittent Broncho-Pneumonia.* BOURGADE. (*Jour. de Méd. et de Chir.*, Feb., 1876.)

The disease has been observed when the hygienic conditions of countries where fever prevails have been modified by cultivation, etc. The physical signs of the disorder are quite like those of ordinary broncho-pneumonia, though perhaps less pronounced. Its onset is very insidious and accompanied by violent matutinal fever, which almost completely disappears during the intervals of the access. The disease may continue obstinately. It is sometimes terminated by pernicious fever, yet if it is correctly diagnosed, it yields readily to the sulphate of quinia.

3. *Cardiac Chorea.* BOYER. (*Le Progrès Médical*, No. 52.)

Chorea, exclusive of rheumatism and the exanthematous fevers, may induce fatal endo-carditis, not merely the choreic palpitations of Spetz-müller and Benedikt. In Boyer's two cases, there were valvular vegeta-

tions but no embolism, which disproves the English theory that capillary embolism produces chorea, since the latter evidently precedes the cardiac lesion.

One of the two cases reported, which at the outset assumed the paralytic form, disclosed, *post-mortem*, a dense adherent cerebral pia-mater and the cortical substance as friable as in general paraplegia, a white substance also friable, a recent cervical spinal meningitis, and, in the lumbar portion of the cord, an alteration of the gray substance, and the right antero-lateral column. Others have noticed meningeal and cortical alterations in chorea: Blache cites a case of purulent meningitis; Rokitsky has seen softening of the medulla; Demme, sclerosis of the latter; Frichard, congestion; Lockart Clarke, alteration of the medullary cells.

Hayem recalls the lesions of the protuberance of the cerebral convolutions of the central parts of the hemispheres, etc., noted in grave cases of chorea; none, however, is constant, unless it be meningo-rachidian hyperæmia, which is rather a consequence of the terminal asphyxia.

Charcot remarks that symptomatic hemichorea, preceding or following hemiplegia, seems to be connected with lesions of the posterior portions of the optic thalami, of the tubercula quadrigemina, of the upper segment of the cerebral peduncle, and the foot of the fan-shaped termination of the crura cerebri (*couronne rayonnante*.)

Tückwel has reported two cases of chorea with obliteration of the posterior optic arteries.

4. *Differential Diagnosis of Hysteria and Epilepsy.* DELASIANNE. (*L'Union Méd.*, No. 15.)

It is true that hysteria presents itself in various forms, but in a certain number of cases there seems to be a combination of hysterical and epileptiform symptoms. In epilepsy the manifestations are cerebral—the movement is toward the brain, whether the point of departure is central or peripheral. In hysteria, the movement is toward the organs of motion—the manifestations are exterior—the point of departure is in the abdominal viscera. Of course in hybrid cases a precise diagnosis is impossible, as the symptoms of each neurosis are present.

In one case the reporter observed a woman, 20 years old, become suddenly pale, cease speaking, totter and fall; then make the loudest cries and weep for twenty minutes. The movements were purely epileptic, or at least epileptiform, while the cry was hysterical. In another case reported, there was a mingling of cataleptic and hysterical phenomena, with alternate predominance of the two disorders.

5. *Slute-colored Tænia.* LABOULBÈNE. (*L'Union Méd.*, No. 14.)

The general hue of these parasites is white or yellowish-white. A vigorous and intelligent Frenchman, 60 years old, who had lived many years in the United States and taken the part of the Confederacy in our late war, had experienced various nervous and epileptiform disorders; sudden

aphasia without loss of consciousness, difficulty of articulation, dyspepsia, rheumatoid pains, etc.

He finally discovered blackish dry granules in his bed. Under the microscope and moistened, these proved to be proglottides of *tænia* with a genital pore on each side, but with this peculiarity, that a blackish pigment in the form of minute granules, was distributed over the superficial layers of the tissue. The patient's wife assured the reporter that the negroes of North America often passed black worms (!)

The decoction of pomegranate rind brought about the evacuation of a large, strong living *tænia*, but gray and slate colored. Placed in a glass of warm water the worm moved slowly and exhibited salient and swollen genital pores of a whitish color, which, upon the discolored surface of the rest of the body, showed like pearls. The four disks upon the head were distinctly black. It measured six metres in length. Neither Davaine de Méricourt nor the reporter had ever seen or heard of a similar species of pigmented *tænia*.

6. *Rheumatism and Traumatism.* VERNEUIL (*Journal de Méd. et de Chir.*, Feb., 1876.)

Three groups are considered: 1. Where the wound and the constitutional disorder occur simultaneously and without appearing to have reciprocal effects. 2. Where the traumatic injury sensibly modifies the evolution of the general disease. 3. Where the course of the surgical lesion presents anomalies attributable to the constitutional condition.

The influence of the rheumatic diathesis upon the march of traumatic lesions seems clear. The serous effusion, œdema, plastic exudation, simple or hæmorrhagic congestion, pain of various kinds (precocious traumatic neuralgia), are of frequent occurrence in wounded rheumatic patients. On the other hand, there are abundant examples of traumatic injury which seem to reawaken articular diseases long since relieved.

Verneuil cites the case of a patient who, after contusion of the hip, had coxo-femoral arthritis and rheumatic disorder of several distant articulations. This woman had never suffered from rheumatism, but presented articular deformities of the toes. In other cases, rheumatism with various complications has appeared in rheumatic subjects a few days before a fracture. The phenomena occurring in the joints were not the sole evidences of the disease. Others, such as eruptions and congestions of different organs were likewise observed.

Gasselin has been struck with the influence exerted by the rheumatic diathesis upon traumatic arthritis. In these cases there is no tendency to resolution but to stiffness and ankylosis. Verneuil points to premature movement and prolonged immobility as obstacles to cure, and believes that *rheumatic arthritis occurring in the wounded has been mistaken for purulent infection*, and the favorable result correspondingly misinterpreted.

7. *A New Form of Pseudo-Paraplegia.* DR. T. GRAINGER STEWART.
(*Lancet*, Nov., 1875.)

A Scotch laborer, æt. 35, complained of want of power in both legs and the right arm, from which he had suffered three years. At the beginning he had felt the sensation of a tight band drawn about his waist, which for awhile had prevented him from standing erect. Later, he had a sensation of uneasiness passing up the left leg and down the right, at which point it felt as though boiling water was being poured upon the limb.

Now, his sensation was good except slight numbness in all the digits of his right hand, except the thumb and fore-finger. Sight had slightly failed, especially in the right eye. Micturition was slow, and the bowels were constipated. On tickling the soles the legs became rigid from spasm of the muscles. While he could grasp firmly with the right hand, he could not perform the finer muscular movements, as of writing. He could flex the thigh, but on attempting to flex the knees, ankles or toes the antagonistic muscles would come into play, the parts becoming rigid. On trying to walk the legs were rigid, and the feet had to be swung forward in a circle. Sitting down, going up stairs, and getting into bed, were very difficult, owing to the rigidity in the legs. The vaso-motor, cerebral and mental and nutritive functions were normal. The muscles were everywhere well nourished. Electro-sensibility and electro-contraction were normal.

The peculiarity of this case was, "the almost perfect soundness of the sensory functions, and the undue excitability of the motor structures," whereby voluntary movement was prevented by corresponding contractions of antagonistic muscles, "general contraction being also induced by peripheral irritation." These features, so far as Dr. S. is aware, do not correspond to any description of any disorder heretofore published. This patient was practically paraplegic although not really so, the power of muscular contraction being nowhere impaired. It must be a pseudo-paraplegia. The essentials of locomotor ataxy were wanting. It had none of the features of hysteria; moreover, on examination, the discs of the eyes were grayish, their outline ill-defined, and the vessels were diminished in calibre—affording proof of organic disease of the cord. He believed the lesion was in the antero-lateral columns of the spinal cord, and that it was of the nature of sclerosis. He predicted the ultimate occurrence of real paraplegia.

The application of ice-bags along the spine appeared to be followed by temporary improvement. When they were applied for some time the patient bent his legs readily, but when he attempted to walk little difference was noticed. Ergot and conium had both proved useless.

8. *Infectious Pneumonia.* A. W. BLYTH. (*Lancet*, Nov., 1875.)

The author reports an epidemic during 1875 of pneumonia, about Barnstaple, England, that appeared to be infectious. The disease in

many cases had symptoms of pleuritis, so that they might properly be called pleuro-pneumonia. In a number of instances a large part of a family would be attacked in succession. In the five unions (towns?) of South Molton, Okehampton, Torrington, Bideford, and Delverton, during 1874 the deaths from pneumonia per 1,000 deaths were respectively, 84, 48, 24, 22, 14. During the *first half* of 1875 the proportion was respectively, 126, 98, 111, 71, 144.

B. thinks the fact that cattle have an infectious pleuro-pneumonia; that both men and sheep have a small-pox; that both men and horses have a scarlet fever (strangles); that they both have a typhoid fever, should make us, by the mere suggestion of the analogy, ready to believe in the possibility of an infectious pleuro-pneumonia.

9. *Death by Lightning.* BALLANTI PIETRO. (*Il Raccoglitore Medico; Aug. Med. Centralz.*, 1876, No. 9.)

On Aug. 5, three laborers who had sought protection from a storm under a high pile of wheat were killed by lightning. The three bodies were found lying on their backs in a half circle, with dark blood flowing from the mouth and nostrils. The hair of the head was singed along the sagittal and lambdoid sutures; the hair of the chin, the breast, the arms and legs was entirely burnt off. The skin of the front of the bodies showed a number of small burns running in zig-zag lines. *Very peculiar to all three bodies was a red brown spot and a horizontal rent of the sclerotic coat of the right eye, as though it had been cut into.* Subcutaneous extravasation over the skulls; venous congestion of the meninges, cerebrum, cerebellum, and medulla oblongata; a sanious exudation at the basis of the brain and over the spinal cord. The right lung was normal, the left filled with dark blood. The right auricle and the left ventricle of the heart were filled with dark blood, while the left auricle and right ventricle were empty.

10. *Otis' Simplified Aspirator.* DR. F. N. OTIS. (*The Med. Record*, Jan. 29, 1876.)

Dr. O. has devised an aspirator "from materials within the easy reach of every surgeon." It "consists of an ordinary well-fitted syringe of any convenient size, joined to which by an inch of rubber tubing is a short hard rubber, metal or glass bifurcating tube. To each arm of this tube is attached another bit of rubber tubing which terminates in a hard rubber valve, such as is used in the construction of Davidson's syringe. These valves are arranged to work in reverse directions. On retraction of the piston, the valve which should be connected with the aspirating needle opens and permits access through the needle to the barrel of the syringe. The piston being driven back, this valve closes while the other opens and permits the escape of the fluid through the opposite tube, connected with a discharge pipe. The last mentioned valve is closed on

the retraction of the piston. Near the base of the needle a short glass tube is inserted in a break in the tubing, to afford early information of the character of the fluid in process of evacuation."

11. *Mortality of Mariners, Railroad Men, etc.* EDGAR HOLDEN, M.D., Ph.D. (*Amer. Jour. Med. Sc.*, Jan., 1876.)

Dr. H. makes a careful study of the rate of mortality both from accident and natural causes in mariners, railroad employes and travelers for pleasure and business. It appears that the healthfulness of the occupation of railroad men, who are much in the open air, largely counterbalances the tendency to mortality from accident.

From a careful study of many tables of mortality of insurance companies, of railroads, and of the census, he concludes: "that the actual death-rate among railroad employes is less than among many occupations considered more favorable to life; that the *proportion* of deaths from the accidents of their occupation is considerable, but shows a balance favorable to the general healthfulness of the occupation; that the actual extra hazard lies among freight brakemen, but is yet less than that found to exist in the safer occupations."

The mortality among ordinary mariners is much greater, 12 or even 20 extra deaths per 1,000 "will not cover the actual extra mortality." This does not apply, however, to officers or seamen of our navy, whose death-rate "*from all causes* does not exceed that of the cities of the United States."

Among sailors in the bunks of coasting and fishing vessels, there was a mortality of 111 per 1,000, while in our navy in the years before the war, the mortality was only 20 per 1,000, reckoning officers and men together. To be more exact, among officers the rate was 25, and among the men 19 per 1,000.

The statistics of deaths from railroad accidents are interesting. In 1863 the average number of passengers carried to each one killed, on the railroads of the State of New York, was 236,337. In Great Britain, according to the report of the Board of Trade, "only one passenger out of 2,312,533 is said to have been killed." "In 1867 the figures stand 1 to 1,336,728; and, in 1866, 1 to 1,073,804."

"Voyagers for health or pleasure," Dr. H. concludes, "are not of necessity at extra risk of life," while voyagers for business or profit are at extra risk "only so far as the character of the climate, the length of stay, and question of acclimation are concerned."

12. *Vomiting of a Curious Worm.* SAGER. (*Peninsula Med. Jour.*, Feb., 1876.)

At a recent meeting of the Washtenaw Co. Medical Society, Dr. Abram Sager, of Ann Arbor, presented a photograph of a worm with the following history: "This worm, $2\frac{1}{2}$ inches long, was vomited, while alive, from the stomach of a child five years old after taking a dose of ol.

terebinth. The child had heretofore been subject to feverish attacks which had been attributed to worms, and had been relieved by the use of common vermifuges. At this time the child had been indisposed for several days and passed several of the common *ascaris lumbricoides*, but got no relief until this worm was thrown off. The worm has bony mandibles, but no antennæ discoverable."

Dr. Sager thought it a larva of the common moth, and that it might subsist and grow for a time in the human stomach. There was always air enough in the stomach for the respiration of such an animal; it could live and breathe similar to the larvæ of the gadfly or bots in the stomach of the horse; "it could breathe through one of its spiral air tubes, there being free anastomosis between its air vessels, while attached to the mucous membrane of the stomach."

13. *A Great Mass of Cherry Stones in the Rectum.* DR. W. H. WESCOTT.
(*Boston Med. and Surg. Jour.*, Feb. 24, 1876.)

A boy eight years old had, in July, complained of tenesmus for several days, but had passed only mucus tinged with blood. Cathartic medicine had produced only griping and more tenesmus. The bladder was found enormously distended and on attempting to pass the catheter, it was suddenly arrested. The rectum was found full of cherry-stones, "filling the whole pelvic cavity and pressing the urethra against the pubic arch." The stones were so firmly glued together that it was difficult to separate them. After removing with the forceps one hundred of these bodies, the boy passed urine freely. "Palpation discovered numerous masses of the stones in the large intestines," and the next day the rectum was again packed full of them. All of the stones discharged were not preserved, but those that were, measured six ounces and six drachms.

14. *Ready Method of Preparing Sections for the Microscope.* DR. JOHN STEVENSON. (*The Edinburg Med. Jour.*, Jan., 1876.)

A mixture of glycerine and tragacanth soon becomes stiff like jelly, and may be used to advantage in which to imbed tissues for the purpose of making slices for the microscope. It cuts like cheese after standing eight or nine hours, and by keeping it in methylated spirit twelve to twenty-four hours it parts with its glycerine and becomes more easily sliced by reason of its being harder. The material is dissolved off the section by cold water with a little glycerine added.

The proportion Dr. S. uses, is two drachms of glycerine to one and one-half drachms of powdered gum tragacanth—to be rubbed together on a slab or plate. Much less gum trag. than this proportion makes a material too soft. If not to be sliced within twelve hours from the time of its preparation the material should be preserved in methylated spirit.

15. *Significance of the Anæsthesia of the Deltoid Region in Dislocations of the Shoulder.* TH. ANGER. (*France Médicale*, 1876, No. 9.)

At a meeting of the "Société de Chirurgie," Anger reported the following case: A man contracted a dislocation of the shoulder by a fall; the next morning the doctor discovered a complete anæsthesia of the skin of the deltoid region and therefrom inferred a contusion or a laceration of the circumflex nerve had occurred. After reduction the anæsthesia persisted and the deltoid muscle was paralyzed. Six days afterwards the patient died, and the autopsy revealed a contusion of the circumflex nerve at the point where it gives off the cutaneous branch for the deltoid region; at that place there was an ecchymosis in the sheath of the nerve. When, therefore, before or after the reduction of a dislocated shoulder the sensation of the deltoid region is gone, one may fairly assume a lesion of the circumflex nerve and expect sooner or later to find the deltoid muscle paralyzed.

V. THERAPEUTICS.

1. *Diabetes Treated With Glycerine.* JULIUS JACOBS. (*Virchow's Arch.; Allg. Med. Centralz.*, 1876, No. 9.)

Like many other remedies, glycerine has been recommended for diabetes at different times; of late, Prof. Schultzen advocated its use very strongly, and in support of his recommendation advanced the following theory: Diabetic patients lose by the excretion of sugar an immense amount of respiratory food, and therefore must use up their fat and albumen in its stead. If they receive glycerine which within the body is not transformed to sugar, but directly to carbonic acid and water, the respiratory machine can be fed without waste of the tissues.

The author having two severe cases of diabetes tested the influence of glycerine on this disease. During the whole time of observation the two patients received at certain intervals a fixed quantum of mixed food, so that the daily ratio was alike throughout the whole course; and each took in 24 hours the following mixture: Glycerine, 25 grammes; tartar. acid, 5 grammes; water, 700 grammes.

In both cases he observed a gradual decrease in the quantity of urine, and a proportionate decrease in the quantity of water the patients drank, without their having diarrhœa. The daily quantity of sugar was reduced to a certain small amount while the patients, gradually and steadily, gained in strength, so much so that after a short time both patients did not feel any signs of their sickness. While the one patient did not gain much in weight, though certainly he did not lose any, the other added 4,400 grammes to his bodily weight within three months. The patients always had a good appetite without that annoying sensation of hunger so troublesome to these patients; they never had diarrhœa or vomiting.

No remedy has yet been known which could completely cure the diabetes; but some remedies are known to moderate the most prominent symptoms (apparent cure) and most likely to prolong the life of the patient. And among these remedies glycerine stands uppermost because taken continuedly in the above doses, it causes a marked improvement, at least for awhile, and it does it even when the patient is allowed to live on mixed diet.

2. *Salicylic Acid for Articular Rheumatism.* KATZ. (*Deutsche Med. Wochenschr.*, 1876, No. 4.)

To confirm the beneficial influence of the salicylic acid upon rheumatic arthritis (see Summary March No. of this vol.), Katz reported the following case: A baker was laid up with articular rheumatism on Jan. 4; at first the ankles, then the knees, later the fingers, wrists and shoulders were affected; great tenderness, soreness and swelling of the joints, fever moderate, pulse 100 to 120; ordered nitrate of potass., quinine and morphine at night. No improvement; on the evening of the 14th, temper., 39.3° C., pulse 100, both shoulder joints exceedingly tender, both wrists greatly swollen, the fingers thick and immovable; patient took one gramme (about 15 grains) of salicylic acid in a wafer at six p. m., and half a gramme every hour afterward till midnight, taking altogether four grammes (one drachm) of salicylic acid. When the doctor called next morning he was greatly surprised by finding his patient out of the bed and using his hands and arms quite freely. Took two grammes of the acid during the afternoon; in the evening no fever, pulse 90, no pain, no swelling of joints; patient was up, complaining of nothing except a profuse perspiration. Forty-eight hours after the beginning of the treatment with salic. acid he could walk alone.

3. *Treatment of Erysipelas.* PROF. D. W. YANDELL. (*Louisville Med. News*, Feb., 1876.)

After reviewing cursorily the treatment of this disease by Gross, Quain, Elliotson, Velpeau, Malgaigne and others, the Professor gives, in one of his excellent clinical lectures, his treatment of this disease, which is here epitomized. Local remedies are not highly flattered by the lecturer. The only "grateful" external application mentioned (unenthusiastically, however,) is the benzoated oxide of zinc ointment with carbolic acid, one grain of the latter to ten or twenty of the former. A closely applied roller bandage, in some cases kept moist by warm or cold lotions, is recommended when the extremities are the seat of the disease. If incisions are thought best, they should not be more than an inch long, or, at most, two or three inches long, carried along the direction of subjacent muscular fibre, deep enough to reach the matter. For œdema, simple lancet punctures are sufficient. In simple cases, in patients of "fair constitutions," an emetic should be administered, followed by a mercurial purge, combined, if necessary, with an opiate. In many cases naught more is

needed. If, subsequently, the disease persist, then cooling remedies will be needed. If debility ensue ultimately, the general treatment should be tonics and stimulants. Food should be given in small quantities, and of the blandest kind. Muriated tincture of iron is a specific with many physicians, but not with the Professor. After a protracted, methodical trial of this agent in erysipelas, along with the late Professor Rogers, the conclusion reached by these two gentlemen was, that they were "not able to see any special good from it, except in cases where tonics were clearly indicated, and in those cases, occasionally met, where *albumen was found in the urine*." In the latter class of cases, the iron possesses *peculiar efficacy*. "Indeed, it seemed that the power of the muriated tincture was just in proportion to the amount of albumen contained in the urine." Quinine is unequivocally good in two classes of cases only; *first*, in those occurring in malarial districts or malarial seasons; *second*, in those where the septic element is greatly in the ascendant, as in traumatic examples of the disease. In the former it will seldom disappoint, and in the second it is "well nigh the only ground of hope." No *specific* treatment exists, hence none is given by the Professor.

4. *Salicylic Acid for Foul Breath and Offensive Expectoration.* Prof. DA COSTA. (*Phila. Med. and Surg. Reporter*, Feb., 1876.)

The following prescription, used as a mouth wash and gargle, has yielded much satisfaction in the above named troubles:

R. Sodii Boratis, Acidi Salicylici, aa, grs. x; Glycerinæ, dr. j; Aquæ, ad oz. j. M.

The Professor recommends this combination in cases of foul breath arising from almost any cause whatever, as from fetid bronchitis, from disordered stomach, or indigestions with bad breaths from pulmonary abscess or cancer, etc., etc. Five grains, three times a day, were given; The purification of the breath was accomplished satisfactorily; the expectoration was improved in odor, but was not abolished.

5. *The Physiological Action of Prussic Acid.* BOEHEN and KNIE. (*Allg. Med. Centralz.*, 1876, No. 10.)

The authors arrived at the following conclusions:

1. The prussic acid has a direct influence on the centres of the nervous system, and in great doses annihilates their functions.
2. The disturbances of respiration and circulation are caused by a stimulation of the medulla through the poison.
3. The pneumogastric nerve is not implicated.
4. Atropia can not be regarded as an antidote against prussic acid; and in case of poisoning, artificial respiration is the only reliable remedy.

6. *Subcutaneous Injection of Lamb's Blood in Cases of Melancholia Considered Incurable.* VOISIN. (*Gazette des Hôpitaux*, No. 5.)

A patient is described whose grave condition was not ameliorated by the most tonic regimen. V. opened the jugular vein of a lamb by a lon-

gitudinal incision and withdrew into a porcelain vessel fifty grammes of blood. He then introduced a needle into the internal face of the right arm of his patient, gave it a lateral motion so as to tear open the lymphatics and capillaries, filled with blood a glass syringe terminating with a rubber tube which was fitted to the needle, and injected the blood without difficulty. A tumor as large as an apple resulted, the patient complaining of slight pain. A twisted suture was applied to the wound in the lamb. There was slight inflammation during the next few days, which soon disappeared. In five days the tumefaction was gone, and the general condition was improved. A second injection of forty-five grammes of blood followed. No evil results. As there was no albuminuria and no bile pigment in the urine, it followed that the injected blood globules remained in the system. The urine, heated and treated with nitric acid, exhibited a slight color of the lees of urine. The general condition continued to improve. The subcutaneous injections of morphia, which were not well borne before the injection of blood, were soon more and more tolerated.

Voisin has experimented in a second case with similar measures—introducing the blood every eight days with satisfactory results.

7. *Treatment of Scrofulous Sores or Runnings.* McLENNAN. (*Med. Times and Gaz.*, 1876.)

The writer, in a communication to the *Times and Gazette*, states that for the past twelve or thirteen years he has treated the above-named troubles with corrosive-sublimate in whisky. Three grains of this salt put into a pint bottle of whisky, is the strength of the solution used. A rag dipped in this preparation twice or thrice a day and laid on the sore and continued till the sores are all dried up, is all that is needed. In no case in which this treatment has had a fair trial, has it failed.

8. *A General Antidote for Poisons.* JEANNEL. (*Medical Press and Circular.*)

M. Jeannel gives the following formula for an antidote for a number of deadly poisons:

Solution of Sulphate of Iron (D. 1.45),	100 parts.
Water,	800 "
Calcined Magnesia,	80 "
Washed Animal Charcoal,	40 "

These ingredients are kept separate, the solution of sulphate of iron in one vessel, the magnesia and charcoal in another, with some water. When needed, the sulphate solution is poured into the last mentioned receptacle and violently agitated. The mixture should be administered promptly in doses of from 1.6 to 3.3 ounces. From experiments, M. Jeannel finds that this antidote, employed in proper proportions, renders preparations of arsenic, zinc and digitalin completely insoluble.

9. *Dressing for Burns.* DR. Q. C. SMITH, of Cloverdale, Cal. (*Pacific Med. and Surg. Journal.*)

Mix subnitrate of bismuth with pure honey till it forms a thick paste and spread it over the burn and contiguous parts plentifully and cover with cotton wool batting, and bind closely. Remove the dressing in three or five days by soaking in water, and reapply same remedy. The reporter considers, after trying many kinds of dressing, that this dressing is the best.

10. *Ergot of Rye as an Antipyretic.* HAYEM. (*Rev. de Therap.; The Clinic.*)

The writer tried ergot in cases of enteric fever, with the object of lowering the temperature. The results were very satisfactory, and its employment in this disease seems to M. Hayem preferable to that of quinia or digitalis. Under ergot there is a much more rapid defervescence; and at the period of the acme, instead of there being a rise in the temperature chart, a plateau is obtained. In some cases in which the ergot was only given during the day, the evening temperature was not so high as the morning. The dose varied from thirty to fifty grains in the twenty-four hours.

11. *Temperature of Drunkards.* REINCKE. (*Deutsche Arch. f. Klin. Med.*, 1875.)

Drunkenness—profound—can be easily diagnosticated from other causes of coma by the fact that in the former the temperature is diminished. The internal temperature of intoxicated persons exposed to cold may fall to an extent truly astonishing. Rectal temperature will commonly fall to 95° or 93° F. Even 82° F. has been annotated, and in one instance the temperature fell to 75.2° F., and the subject upon whom this extraordinary temperature was noticed regained his normal heat in twenty-three hours.

VI. OBSTETRICS.

1. *Siamese Obstetrics.* DR. W. L. HUTCHINSON, of Bangkok, Siam. (*N. Y. Med. Rec.*, Feb., 1876.)

The old "yi" or midwife superintends the manipulations and pressures made by friends of the patient, upon the occasion of her lying in. The woman is placed upon her back, and then a female friend is seated on each side; the latter press forcibly upon the uterus down and backward. If three or five hours of this procedure fail to expel the fœtus, then one of the attendants, steadied by her colleague, tramps upon the abdomen of the laboring woman, always treading anatomically above the uterus.

This failing, the last resort is to suspend the unfortunate by a strap beneath the arms. She is then clasped by the arms of one or both of the attendants, and the baby is *squeezed out of the womb*, or else something gives way inside the poor laboring woman, uterus, perineum or the baby's cranium. Comment on some of the horrible results of this high art is superfluous.

2. *Cæsarean Section.* BELLUZZI. (*Gazz. Med. delle Calabrie*, Jan., 1876.)

A young woman, twenty-nine years old, pregnant and at term, entered the Maternity at Bologna. She was rachitic, and the conjugate diameter was estimated at about forty-eight millimetres. The fœtus was living, and presented by the vertex. The os had dilated to four centimetres, and the waters had escaped.

Under anæsthesia, the intestines were discovered (by palpation and percussion) over the right side of the uterus. These were pressed away, as far as possible, and the incision made somewhat to the left, parallel to the lenia alba. The feet of a living and active fœtus were seized, and the body withdrawn from the uterine cavity, as well as the entire placenta; but, in spite of the utmost care, the intestines escaped from the womb and were replaced with difficulty. The mother entered upon convalescence, but soon died from metro-peritonitis. The child survived.

The pelvis of the dead woman examined, *post-mortem*, was found to measure in its conjugate diameter hardly 50 millimetres.

3. *Cæsarean Section, with Fortunate Issue both to Mother and Child.* TESTA. (*La Clinica, of Naples; Gazzetta Medica delle Calabrie*, Jan., 1876.)

A Neapolitan woman, thirty-two years old, had a pelvis whose lesser diameter measured scarcely ten lines. On the 2d of January, Prof. Cav. Raffælo Novi performed the Cæsarean section, in the presence of many professors and medical students, with the most brilliant results. From the time of etherization to the passing of the last suture, scarcely twenty minutes intervened. The incision of the uterus was made directly over the placenta. The fœtus was extracted living and active, and the mother was rapidly restored to health. This is the second successful operation recorded in Naples, and the happy results are thought due in part to the slight modification of the ordinary operation introduced by Prof. Novi.

4. *Deformity of Hand, resembling Foot, with Presentation in Labor.* COULON. (*Le Progrès Méd.*, No. 5.)

In a case of labor at term, with presentation of the trunk and fœtus long dead, version was attempted when dilatation was complete. When the hand entered the uterus, absence of the thumb was determined, with the presence of a limb bent at right angles, terminating in an osseous projection which seemed to be the calcaneum. C. attempted version with the limb, and failed. Fichoux was summoned, who encountered similar difficulty,

and then, abandoning this limb, sought and found another, by means of which the labor was terminated.

The foetus was found to be at term and of normal size. The right hand was normal in its direction, but not provided with a thumb. This appendage was also wanting in the left hand, which latter was also directed backward to the ulnar side, so that the ulnar border of the anterior part of the carpus and a portion of the metacarpus corresponded to the surface of the radio-ulnar articulation, the latter being represented merely by a small facet. The radius was almost entirely wanting. The ulnar border of the carpus presented also an articular facet. The superior face of the carpus was contiguous with the external border of the forearm, and projected beyond it, as the os calcis in the foot.

Hence the difficulty in recognizing the presentation.

5. *Treatment of Asphyxiated New-born Children by Allowing Blood to Escape from the Cord.* EUDIN. (*Le Progrès Méd.*, Jan. 15, 1876.)

The author clearly describes the distinction between blue asphyxia and white asphyxia of the newly-born. He also points out the danger to these infants from the induced hæmorrhage. They are left pallid and in a condition of "profound apathy."

When section of the cord is made at once, the infant is deprived of about 92 grammes of blood which should have been received from the placenta. If from two to four spoonful more (40 to 80 grammes) be permitted to flow out, a new cause of profound æmia comes into play. The infant then suffers a loss which in the adult would amount to 3,000 grammes. And all this for what? To relieve, you say, "pulmonary and cerebral congestion."

Pulmonary congestion can not evidently occur, since at birth there is atelectasis. As to cerebral congestion, that is only too readily mistaken for asphyxia. But even supposing there is congestion, let the infant be left attached to the cord and suffered to cry and respire freely. The cyanosis constantly disappears. The dilating lungs constitute a diverticulum into which the blood speedily pours; mixed with air in the pulmonary vesicles, this blood is rapidly oxygenated. The asphyxia and violet tint of the integument then disappear. If, on the other hand, bleeding from the cord is practiced, the hue of asphyxia disappears, it is true, but the skin, instead of assuming the delicate rose tint which is habitual, soon exhibits an extreme pallor.

The following conclusion is formulated: "In cases of asphyxia of the newly-born, before ligating and dividing the umbilical cord we should wait, if possible, for the establishment of respiration and the beating of the heart. *Bleeding from the cord should never be practiced before artificial respiration and insufflation have been tried*, in cases of apparent death.

6. *Best Period for Ligature of the Funis.* BUDIN. (*Gaz. Méd.*, Jan., 1876.)

At a recent meeting of the Société de Biologie, M. Budin read a communication (published in full in the *Progrès Médical* for January), giving an account of numerous investigations he had carried on in the *Maternité*, at the desire of M. Tarnier. From these it results that he is of opinion that the ligature and section of the cord should not be practiced until one or two minutes after the cessation of the pulsations in the cord, a very much larger portion of the circulating blood being retained in the system of the infant than when the cord is at once tied and divided. Moreover, the detachment and expulsion of the placenta, according to M. Tarnier's experience, seem to take place more readily when the infant has been allowed to breathe and cry for some time before its separation is effected.

7. *Congenital Absence of Uterus.*

C. C. Lewis, of Owensboro, Ky., reports a case of congenital absence of uterus, in a woman twenty-eight years of age, married three years. She, of course, has never menstruated, and has never experienced sexual desire. She has a vagina about three inches long, terminating in a cul-de-sac. She has well-developed breasts.

VII. GYNECOLOGY.

1. *Treatment of Chronic Corporeal Endo-Metritis by Pressure.* PROF. T. A. REAMY, of the Med. Col. of Ohio. (*The Clinic.*)

The Professor advocates the use of laminaria tents, carried to the fundus uteri. The cavity of the uterus is filled full of tents and they are allowed to remain till uniform pressure has been exerted upon the corrugated, reduplicated folds of the sodden endo-metrium, ironing as it were, (or *sponging*) them out as smoothly as can be accomplished by this pressure from within outwards. First, one long tent is inserted extending from the os uteri externum to the fundus; then shorter ones are introduced reaching from the os *internum* to the fundus, numbering from two to four, according to the capacity of the body. The shorter ones surround the long one. The effect of this pressure upon the lining membrane of this organ is to cause it to respond much more readily to remedies, which can be much more easily applied. Six cases has the learned Professor treated thus, and he calls the attention of the members of the Cincinnati Academy of Medicine to this style of treatment by pressure.

(This subject is treated of by Prof. Byford only, in his work on the uterus. The *alterative effect* of pressure is there dilated upon. Professor Reamy is referred to that work.—Ed.)

2. *Fibroid Tumor of the Perinæum.* DR. ELY McLELLAN, U.S.A.
(*Louisville Med. News.*)

The patient, Miss A., æt. 23 years, a seamstress by occupation, suffered greatly from the presence of a tumor occupying the perinæum, encroaching rather more on the vagina than the rectum, and inducing symptoms almost identical with those of hæmorrhoids. Its growth had been slow and was first noticed after wearing a disk pessary a few days. The patient, thoroughly anæsthetized, placed in the BREECH BACK position, was operated on as follows: The vaginal covering of the tumor was placed upon the stretch by means of retractors in the vagina and the operator's forefinger in the rectum pressing behind the tumor. An incision to the extent of the tumor along the vaginal raphé was made, and the vaginal portion carefully dissected off. Failing to remove the tumor by traction with the vulsellum, the mass was removed by the knife, in accomplishing which, the finger in the rectum was of invaluable service; for so close to the rectal wall was it necessary to go that the anal circular fibres were distinctly demonstrated. Recovery speedily took place. The tumor, of the size of a hickory nut, possessed no distinct envelope, "differed only in density and color from the surrounding tissues, was distinctly an outgrowth from the sphincter ani, and its cause was undoubtedly to be found in the local irritation induced by the use of the pessary." The extreme rarity of the location, and the undoubted cause (presenting an additional objection to such pessaries) of this tumor, are the reasons for writing its description.

3. *Uterine Hiccough.* FRITSCH. (*Medical Times; Med. and Surg. Rep.*,
March, 1876.)

The patient, a young married woman, previously in good health, had been suffering from hiccough three months. No cause could be assigned. The paroxysms would come on at irregular intervals every day and disturb her more or less during the night. The menstruation was not disordered, but with it the trouble exacerbated. A great variety of therapeutics heretofore resorted to, had failed to give permanent relief and the patient's health was now evidently suffering. Vaginal examination revealed excoriations at the portio vaginalis uteri, with moderate cervical catarrh. In every other respect, the reproductive organs were found healthy. Local treatment with the solid silver nitrate was followed by a prompt arrest of the hiccough and ultimately in a complete cure of the primary disease. This case strikingly illustrates reflex manifestation.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

PHTHISIS. ITS MORBID ANATOMY, ETIOLOGY, SYMPTOMATIC EVENTS AND COMPLICATIONS, FATALITY AND PROGNOSIS, TREATMENT AND PHYSICAL DIAGNOSIS. In a series of Clinical Studies, by *Austin Flint, M.D.*, Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, Fellow of the New York Academy of Medicine, etc. Philadelphia : Henry C. Lea. 1875.

This is a book of 440 pages, divided into six chapters. The first five chapters are devoted mainly to clinical reports of cases of phthisis, 670 in number, which came under the author's observation during a period of thirty-four years. These are grouped and analyzed with reference to their morbid anatomy, etiology, symptomatic events and complications, fatality, prognosis and treatment.

Necessarily, many of the records are deficient in one or more of these elements, so that the various groups are much smaller than the whole number of cases studied.

Thus, in only eighty cases were the post-mortem appearances noted, and in the majority of these only the thoracic organs were examined.

So with regard to the symptomatic events, fatality, etc., many reports are more or less imperfect.

The latter part of the fifth chapter is made up principally of a repetition of the remarks on treatment which are scattered through the preceding pages in connection with analyses regarding various remedial measures. The last chapter treats of the physical signs and diagnosis of the different stages of phthisis.

The purpose of this book as stated in the introduction, is to give the results of clinical studies relating to phthisis.

These results in so far as they are of special interest, as differing from generally received opinions, or in suggesting new thoughts, we epitomize below.

Pulmonary phthisis is a bilateral affection, although it does not fully exemplify the law of symmetry; for both lungs are seldom affected equally, evidently owing to the affection being of older date in one than in the other. The common belief that the left lung is usually first, and therefore most deeply implicated seems erroneous, as shown by fifty-five cases in which the post-mortem condition of the respective lungs was noted. In 28 of these, the greater amount of disease was in the right lung, and in 27, in the left.

Acute miliary tuberculosis usually affects both lungs to about the same extent.

In regard to the relation which granulations, or miliary tubercles, bear to the more common form of phthisis, or tuberculous infiltration, we quote: "It is a reasonable supposition that granulations precede and determine the occurrence of the exudation (which doubtless consists of inflammatory products) within the air cells, the ulterior results being softening, liquefaction and cavities." In this opinion the author differs from those who, following Virchow, believe with Niemeyer, that "The greatest danger for the majority of consumptives is, *that they are apt to become tuberculous*," that is, affected with miliary tubercles. Professor Flint goes on to say: The greatest danger to the majority of consumptives relates to the amount of injury of the pulmonary structure, from exudation, liquefied morbid products, cavities, etc. In a small proportion of cases co-existing miliary tubercles are so abundant that acute tuberculosis seems to have been superadded to the chronic disease. But it does not follow that there is any causative connection between the two affections.

Lobar emphysema is believed to exert a protective influence against phthisis.

Pleuritic adhesions are almost universally found at

the autopsy in cases of phthisis, indicating that pleurisy generally accompanies the disease ; and fibroid solidification or interstitial pneumonia occurs in a large per cent. of cases.

A marked tendency to the development of phthisis during a particular decade of life is taken as evidence of the existence of a tuberculous diathesis.

Of 669 cases in which the sex was noted, 505 were males, and 164 females. These statistics differ widely from those of M. Louis, who, in 123 cases observed during a period of three years in a service at La Charité, Paris, found 57 males and 66 females. This variation, as the author remarks, illustrates the liability of statistics to be affected at different times and places by undeterminable extrinsic causes. It farther goes to show the unreliability of conclusions drawn from the analysis of a limited number of cases.

Unfortunately many of the conclusions in this work are based upon the analysis of so few cases as to be of little value ; however, the analyses are interesting and will have increased importance when added to others of a similar character.

We notice what seems to us an error in the author's conclusions, regarding the influence of occupation in favoring the development of phthisis. The occupation was noted in 212 of his private cases. Of these, 30 were physicians ; 32, clerks ; 4, bookkeepers ; 15, merchants ; 14, lawyers ; 11, farmers ; 8, medical students ; 6, clergymen ; 7, southern planters ; and 5, teachers. In all, seventy different occupations were noted, 46 of which were represented each by a single case ; 7, each by 2 cases ; 2, by 3 cases ; 2, by 4 cases, and the others as shown above.

The author thinks the number of physicians and medical students large from personal reasons. The number of clerks he takes as evidence of an unfavorable influence exerted by their occupation.

In his collection of private cases there was not a single

laborer; only one tailor, and indeed, with few exceptions, not more than one following any of the humbler callings. This would seem to indicate that his private cases were drawn from the better classes of society.

In the Chicago City Directory for 1873 and 1874, out of 1,066 names selected at random, we find 80 clerks and bookkeepers, 62 merchants and 148 laborers, beside many tailors, blacksmiths, foundry hands, helpers and others. Adding together the number of clerks, bookkeepers and merchants, we have 142, or a little more than 14 per cent., of the whole number, which still leaves an unfavorable showing for these occupations, if compared with his cases in private practice. However, the average of all persons named in the Chicago City Directory would not be a fair standard by which to compare his private cases, as shown by the fact that among the latter there was not one laborer, while in the directory list there are 148 in every 1,066 whose occupations are given, or about 14 per cent. If we were to take into consideration the number of horseshoers, helpers and others who would naturally be classed as laborers, the per cent. would be greatly increased and would nearly, if not quite, equal that of the laborers in his hospital cases, about 19 per cent.

It seems from these figures that the average of both his hospital and private cases would fairly compare with the average of the directory list.

The whole number of cases in which he noted the occupations, was 370, of which clerks, bookkeepers and merchants constituted 56, or a trifle over 15 per cent.

In the 1,066 names taken from the directory, clerks, merchants and bookkeepers constituted 142, or a trifle over 14 per cent.

It must be remembered that the author's practice has been mostly in cities, and it is probable that the class of persons with whom he came in contact did not vary greatly from the class named in our directory. We find that a little over 14 per cent. of the latter followed

in-door pursuits, that is, they were clerks, merchants or bookkeepers, while only 15 per cent. of his cases followed similar occupations. The difference is so trifling, we are forced to believe, that the author's conclusion regarding the agency of in-door life in the production of phthisis is based on insufficient data. His statement is as follows: "As it seems to me, it may fairly be concluded that these facts go to show an agency in the circumstances belonging to the life of clerks and bookkeepers which conduces to the development of pulmonary tuberculosis. The number of merchants may be considered as having, measurably, the same significance." We have purposely reckoned the merchants with the clerks and bookkeepers, as there is no essential difference in their habits with regard to in-door life.

Recalling the fact that the author's cases were mostly seen in city practice, it is interesting to note that the number of farmers was 14 out of 370 names, while in the whole number of names taken from the directory (1,066, there was not one farmer. Cities are full of merchants) and contain but few farmers, yet the number of the latter in this list of phthisical patients is only three less than the number of merchants; *a priori* this would be taken as evidence that of all occupations, farming predisposes most to the development of phthisis. This again shows how easy it is to err in drawing conclusions from statistics. To be accurate, we must not only know the number of persons diseased, but also the number who are healthy; otherwise we might fairly class nationality as a predisposing cause of disease, if in any collection of cases, the per cent. of Germans, Americans or English happened to be large. Prof. Flint holds to the common belief that out-door life, especially such as farmers experience, is in some degree protective against phthisis.

The analysis, so far as it goes, would support an opposite conclusion. It would not seem strange that persons exposed so much to the vicissitudes of the weather, often living poorly, sleeping in small, unwholesome rooms, and

frequently working beyond their strength, should be subject to this affection. Statistics gathered from a thousand country practitioners might show a great prevalence of consumption among farmers, for every physician experienced in country practice can recall many who have suffered from this disease.

The author concludes that occupation has an agency in the etiology of this disease, "in so far as it is sedentary and involves confinement within doors." He infers that pregnancy has considerable influence in the development of phthisis, from the fact, that out of 87 females married and under forty years of age, the disease occurred during or shortly after gestation in 22, yet pregnancy seems not materially to affect its course after phthisis has been established.

Pleurisy, bronchitis and pneumonia are not believed to stand in a causative relation to this disease.

Hæmoptysis, when coming from the bronchial mucous membrane and not dependent upon disease of the heart or injuries to the chest, may be considered a forerunner of phthisis, though the latter may not supervene for months or even years.

Contrary to the opinion of Niemeyer, that hæmoptysis is a cause of phthisis, Flint teaches that it is in some degree preventive. After the development of phthisis, hæmoptysis is thought to be a favorable event as regards the arrest or retardation of the disease.

Under the head of treatment, of profuse hæmoptysis, the author refers to the popular belief in the efficacy of sodium chloride, and he admits there may be some reason for it; however, he recommends, chiefly, opiates to soothe the patient, and the cardiac sedatives; among which he enumerates digitalis, aconite and veratrum viride. Digitalis is generally, and we think justly, believed to have an opposite effect on the heart's action from aconite and veratrum; therefore, in cases where the latter are useful, we should expect harm from the administration of digitalis.

Venesection is not advised ; in place of it, the author suggests ligation of the limbs. He says : "The effect on the circulation is very great, and without watching, fatal syncope might be induced."

He has employed hæmostatics, such as tannic acid, gallic acid, acetate of lead, pernitrate or persulphate of iron and ergot in many cases, but he finds it difficult to form any positive opinion as to their value, though he does not deny that they may sometimes aid in arresting bronchial hæmorrhage.

He professes to know little of the topical application of astringents. In one instance he saw persistent slight hæmorrhage arrested by inhalation of the vapor of turpentine. This reminds us of Hunter's expression regarding turpentine—"It is the best, if not the only, true styptic."

Persistent diarrhœa occurring during the course of phthisis, is a symptom of ulceration of the small intestines.

Death may result in these cases from peritonitis, induced by perforation of the intestine, or it may be the immediate consequence of profuse hæmorrhage.

Chronic pharyngitis does not denote the existence of phthisis, or a tendency thereto. Chronic laryngitis, which is a common complication of pulmonary phthisis, occurs more often in males than in females. There is reason for believing that it seldom or never precedes the pulmonary affection, and that when it accompanies the latter it does not militate against the chances of recovery, unless it interferes with deglutition.

This complication so often attends those cases of phthisis which progress slowly or are ultimately arrested, that the author considers it a favorable symptom. Permanent huskiness of the voice, or aphonia, is apt to result from laryngeal phthisis, and, unfortunately, these conditions can not be relieved by treatment.

Pneumonia occurring in connection with phthisis, usu-

ally terminates in resolution ; it is merely a coincident disease, having no relation to the phthisical affection.

Usually perforation of the lung in consequence of phthisis, is soon followed by death.

Of 24 cases recorded by the author, 21 were fatal ; and the remaining 3 presented symptoms denoting a like termination, but they passed from observation, and their histories are incomplete.

In 10 cases in which the duration was noted, the time from perforation till death averaged a little over three weeks ; individual cases varying from four days to two months.

Thoracentesis may relieve the pneumo-hydrothorax, resulting from perforation, but it can hardly be considered as more than a palliative measure.

Pulmonary apoplexy, gangrene of the lungs, and pericarditis, are among the extremely rare events which occur in connection with phthisis ; they are doubtless only coincident diseases.

The author believes pulmonary phthisis never results from renal disease.

He thinks the rheumatic diathesis (if it has any influence), is antagonistic to phthisis. This view is favored by an analysis of his cases, which gives only three in which the patients were known to have had rheumatism, though the latter is very common in the decades of life in which persons are most exposed to phthisis.

Perineal fistula was noted in 13 cases, in 8 of which the histories were too imperfect to be of value ; but the 5 remaining seem to have been benefited by it ; yet, as the author remarks, it is needless to say they are too few to serve as the basis of positive conclusions.

Of the 670 cases observed, 44 recovered, so that the signs of phthisis entirely disappeared ; in 31, the disease was arrested, so that the patients enjoyed fair health for years after the attack, without any increase in the pulmonary affection ; and in 10, the disease progressed so slowly that life was prolonged after its inception, from two and a half to forty years.

In most of the cases of recovery, there was evidence of only slight consolidation of the lung, and the question may fairly be raised, whether in some of these, other conditions than tuberculous deposits might not have caused the signs.

It may seem presumptuous for us to doubt the judgment of so experienced a diagnostician as the author, but this question has several times forced itself upon us in the consideration of just this class of cases, and we confess to skepticism regarding the diagnosis in several of these forty-four. The fact that a large number of cases, presenting signs indicative of slight consolidation at the apex of one lung, go on to the certain signs of phthisis, may be taken as evidence that similar cases which do not thus progress, are examples of recovery; yet, to us, the evidence seems incomplete.

The author thinks the probability of arrest or recovery from phthisis, other things being equal, is in proportion to the smallness of the deposit; though some cases terminate favorably after the local lesion has become considerable.

Age, sex, family predisposition, hæmoptysis, chronic laryngitis, pleurisy with effusion, and perineal fistula, have little bearing on the prognosis, though, as already stated, some of these may be taken as favorable symptoms.

Essential elements for a favorable prognosis, are good appetite and digestion, and a determination on the part of the patient to overcome the disease.

The duration of fatal cases is somewhat shorter in females than in males. It is likely to be short in females when developed during pregnancy, and in either sex when it occurs after the person has reached thirty years of age. Occupation, and habits as regards the use of alcohol, do not materially affect the duration.

Persistent fever is always a bad symptom, regardless of the amount of the pulmonary affection.

Treatment.—Acute miliary tuberculosis tends intrin-

sically to a fatal termination, and therefore its treatment embraces only palliative measures. Chronic phthisis, that is, the ordinary form of phthisis, has not in all cases an intrinsic tendency to death; on the contrary, in some instances it has an intrinsic tendency to a favorable termination, as shown by the recovery of many cases in which there was no treatment. This the author states succinctly as follows: "Phthisis sometimes ends in recovery, from an intrinsic tendency, without treatment. Hygienic treatment contributes, probably, in no small measure, to this ending. Cod-liver oil and alcoholics, in certain cases, exert a favorable influence."

The duration of the disease was noted in 112 cases; in which it was found to vary from a few months to forty years, the average being about thirty-three months. There was one case supposed to have existed for forty years; one, for thirty-one; and one, for twenty years.

There were 7 cases lasting from ten to fifteen years, and 5 lasting from five to ten years.

The most interesting analysis in the book, is that of 31 cases, in which the disease was allowed to take its course without any treatment of importance, either hygienic or medicinal. Of these cases 8, or about 26 per cent., recovered; in 6, or about 19 per cent., the disease was arrested; and in about 51 per cent. it ended fatally, after a period of from six months to fourteen years.

This analysis is of much importance as a contribution to the study of the natural history of phthisis, and it should make us more modest in our expressions about curing disease, and more careful in our estimation of the value of remedies employed.

There is no error more general or absurd than that of believing recoveries due entirely to the medicines which the patient happens to be taking at the time. This error is so general that even professional men often honestly believe their medicines to have wrought a cure, which was but the natural termination of disease, or the result of non-medicinal causes.

The analysis of 55 cases treated by hygienic measures (under which term the author embraces tonics, palliatives and change of habits as regards out-of-door life), gives 15, or a fraction over 27 per cent., of recoveries; in 10, or a little less than 18 per cent., the disease was arrested; in 7, or about 13 per cent., it was slowly progressive, and in 23, or about 41 per cent., it ended fatally in a short time.

Compared with the preceding analysis, we find the proportion of recoveries greater in this, by a little less than 2 per cent.

The proportion of deaths, as shown here, is a little less, but if we add the number of slowly progressing to the fatal cases in this list as was done in the former, the proportion of deaths is nearly 55 per cent., instead of 41. In this group, the per cent., of cases in which the disease was arrested, is less than in the group which received no treatment. At the first glance, these statistics would seem to show that hygienic treatment was worse than no treatment at all; yet the author thinks "these figures show some influence of hygienic measures on the termination of phthisis, although much less than was to have been expected."

The author concludes that benefit is derived, in many cases from change of habits, involving giving up in-door and sedentary callings and engaging in out-of-door and active pursuits; and in some cases, from a permanent change of residence, in which instances the improvement is more or less due to accessory circumstances; in others, sea voyages and change of climate are especially beneficial. The benefit in this latter instance, seems due more to incidental circumstances than to any special climatic influence, and, therefore, he deprecates the practice of sending patients far advanced in phthisis, away from the comforts of home, perhaps to die among strangers, uncared for and alone.

Chlorate of potassa, alcoholics *moderately*, pancreatic emulsion, and some other remedies, he has used, but not

in a sufficient number of cases to render the analyses of much value ; however, these remedies appear to possess no special influence in checking this disease. Cod-liver oil seemed to benefit some cases, and so also did the *free* use of alcoholics. The hypophosphites were tried in 16 cases, two of which recovered.

In the general remarks on treatment, the importance of good alimentation is insisted upon ; alcoholics, freely, are recommended, when, upon trial, they are found to improve the patient's general condition. Cod-liver oil is recommended, when it is well borne by the stomach ; when it is not, some of the other fats may be substituted, and in some of these cases cream will be specially beneficial. In some cases, the cool sponge-bath, daily, seems to invigorate the patient. If we decide upon change of climate, the patient's feelings should be consulted in making the selection. As a rule, mild climates are best for those who are most comfortable in warm weather, and colder climates for those who prefer winter.

Diarrhœa, resulting from intestinal indigestion, is to be treated by tonics. Night-sweating may be checked by some of the remedies in common use for that purpose, and daily paroxysms of fever may often be relieved by anti-periodic doses of quinine.

The author thinks that the marital relations do not operate unfavorably upon the patient ; but that children springing from such a union are likely to inherit the tuberculous diathesis. An analysis of these cases fails to furnish sufficient ground for supposing that phthisis can be communicated by the husband to the wife, or *vice versa*, through the intimate relations of married life.

We, therefore, conclude that the only evil likely to result from the marriage of phthisical persons falls upon their descendants.

The author asks : " Shall the physician approve of the marriage of phthisical patients ? "

He gives the conclusions drawn from his analyses, but leaves the reader to answer the question according to his

own sense of morality and justice. Individually, we believe it wrong to inflict needless injury upon the living or the unborn, and in view of the facts presented, we hope the profession and the public will answer this question with a decided no.

The last is a well-written chapter, treating of the physical signs and diagnosis of phthisis. Its teachings do not materially differ from those of other authors, but a few minor points are noticed which we do not remember to have seen in other books. Among these we find the following :

Cracked metal and amphoric resonance may sometimes be elicited over the primary bronchi when the intervening lung is solidified.

Neither whispering pectoriloquy, nor pectoriloquy with the loud voice, are distinctive of cavities, because articulate words may be transmitted by solidified lung. The pectoriloquy produced in cavities may be distinguished from that occasionally obtained over solidified lung by being low-pitched and blowing, while the latter is high-pitched and tubular.

The author describes cavernous, and broncho-cavernous respiration, and cavernous respiration with an amphoric intonation.

The first of these is pathognomonic of a pulmonary cavity. It is a low-pitched non-vesicular puffing or blowing sound, heard during both portions of the respiratory act.

A few typographical errors occur in this as in most other books ; thus, in the record of a case (p. 86), it is stated that he had not lost in *height*, and similarly (p. 257): "The heart was enlarged, weighing fourteen pounds."

Though the analyses which are given in this work have been carefully made, we can not but think the number of cases in each too small to justify definite conclusions ; yet we feel under obligation to the author for leaving to us the results of his labor and large experience, for we think

the histories of these cases will become of great importance when compared with many more of the same character.

The publisher has perpetrated another nuisance by binding with this work an advertising pamphlet, which interests only himself. We think it outrageous that any one who wishes to place this work in his library, must store with it such a quantity of trash.

Handbills are useful in their places, and may possibly be ornamental on fences and neglected walls, but none of us care to cover our libraries with them.

We hope publishers will soon learn to send us their advertisements in a more agreeable manner. E. F. I.

THE BEST WELFARE OF INVALIDS SEEKING THE BENEFIT OF CLIMATE; with Suggestions for the Co-operation of Physicians, Life Insurance Officials, etc. By *Charles Denison, M.D.*, Denver, Colorado.

This brochure of Dr. Denison is full of practical suggestions, and its perusal must lead us to profitable reflections on change of climate. Among other things he says: "The facts and statistics, the results of experience, which are to constitute the storehouse of knowledge in this important direction, are yet to be furnished by faithful observers. The basis of climatic treatment, if there has been any, has hitherto been largely furnished by interested parties whose mercenary motives have greatly affected their influence. The Kansas Pacific Railroad, for instance, with the business zeal characteristic of railroad enterprises, has expended over a hundred thousand dollars in advertising Colorado, chiefly as a health resort. This has been done in a manner not very dissimilar to the way a patent medicine vender would advertise his claims, yet, perhaps, with not as much injury as he would do if working on as large a scale. * * * * *

Most desirable statistics, of just how many do annually journey far for health, are wanting. We have only newspaper reports of so many being *here* and so many *there*,

a number spending the winter in one locality or the summer in another."

In the absence of the definite knowledge which an accumulation of statistics would afford us, it is not strange that mistakes should be committed in selecting a climate for invalids.

The Doctor points out other errors of great moment in the following paragraphs :

"A point of great importance in this connection is, that of those who do resort to healthful climates for regaining lost vitality, many are constantly perpetrating this mistake, that simply *to be* in the vicinity of the health resort is sufficient, while the temper of the mind, the out-door life, and the blessed sunshine, are disregarded. I can not better express my opinion of the necessity of some supervision over the habits of thought and the separation of consumptives from each other, than to quote from an excellent letter from Dr. D. I. Caine, of Asheville, N. C. He says :

" 'I think it is a great and grave error for persons of wealth, intelligence, refinement and high nervous organization to be congregated in buildings at different health resorts, whether they be called hospitals, hotels, boarding houses, etc. The spectacle to each other, of so many afflicted with the same or similar disease ; the sight of the dying, reminding them of their own (nearly certain) end; the staple subject of talk being the amount of expectoration, the degree of cough, of sweat, etc., etc.; all these tend to exert a very depressing influence upon all. So far from advising *aggregation*, I have invariably advised *segregation*.'

"There is often, too, a lack of confidence and mutual dependence between physicians widely separated, which I can not help thinking sometimes lessens the patient's chances of recovery. Who can be expected to know more of the conditions of life and success in treatment, at a far distant health resort, than the observing physician whose field of work is there? In this connection let me quote from an interesting letter from a faithful observer, Dr. Manning Simons, of South Carolina :

“ ‘I am perfectly satisfied that a more careful consideration is due to the application of climate to pulmonary disease than the subject receives. Too much is trusted to chance and experiment in individual cases. A physician sends his patient away for a change, not with any definite idea as to the indication to be met by any particular climate, but all of them to the same region, that most fashionable at the time. Most of the people from the Northern and Eastern parts of the country, who make up the largest part of those who travel in the South in search of health, seldom consult Southern physicians, but prefer to communicate, even by letter, with their own medical attendants, who, though at a distance, are presumed to know more of this matter than those of us who have looked especially into the subject.’ ”

As a means of procuring extensive statistical information, and properly making use of it for the benefit of the invalid, the Doctor proposes a Climatic Association, composed of physicians interested in such labor, and especially representatives from the health resorts of America, devoted to the prolongation of life and the adaptation of climate to the needs of invalids. It should be their work to gather statistics of all climates, familiarize themselves with the details of their special labors, and to tabulate all the results of the journeyings of invalids in America from now henceforth.

This association should always seek to prevent the *useless* and encourage the *useful* migrations of invalids, and continually watch over the journeyings of their patrons.

Insurance companies could, and the Doctor thinks would, avail themselves of the knowledge gained through this association, to send their invalid policy holders to suitable climates for the prolongation of their lives.

Through a central council or bureau of medical advisers, communication with the rest of the medical profession, insurance companies, and invalids generally, could chiefly be carried on by means of a specially prepared medical examination or diagnosis paper, and in return advice could be given as to the choice of climate, mode of life needed, etc., etc.

Such, in brief, is the plan proposed for consideration. Let us, by way of illustrating how this scheme would work, suppose a single case.

A. B., of Maine, for instance, is in failing health, his case is complicated and he has reason to fear consumption. Either from a previous knowledge of the Climatic Association, or by the counsel of his physician, he writes to the Advisory Bureau. The examination papers are sent to A. B. (or his physician) with advice, if needed, as to what physician should make a medical examination of his case. The examination papers are filled out, partly by the physician and partly by A. B. himself. These are returned to the Advisory Bureau. These are full and explicit, giving particulars upon all points which should be inquired into. Thus, with the medical facts, personal history, desires, pecuniary circumstances, etc., of the applicant before them, the head-physician can advise the mode of life and change of climate, etc., needed, better than any physician alone, whose time is taken up with busy general practice.

TRANSACTIONS OF THE COLORADO TERRITORIAL MEDICAL SOCIETY,
at its Third and Fourth Annual Sessions, held in Denver,
June, 1874, and June, 1875.

The transactions for 1874 are very briefly reported in the volume before us, most of the papers having been published elsewhere. In 1875 the report is more full. There is a very interesting report on Gynecology, by Dr. Newman, wherein twelve operations by different surgeons are recorded; a paper on Blood-letting, by Dr. McClelland, in which strong ground is taken in favor of the more frequent employment of this medical resort; a report on Climatology, by Dr. T. E. Massey, of Denver, which is interesting and novel, as coming from a Colorado doctor, by his declaration that, while in the climate of the Territory consumptives and asthmatics get a new lease of life, and sufferers from malaria are sick with this annoying malady nevermore—that, “the wrinkled skin of middle-aged men, and the tallow faces of youngish maids and

matrons are most significant, that the *drying process* of this elevated region is promotive of neither longevity nor beauty."

Here is a report of two cases of rheumatism—one acute, the other sub-acute—successfully treated with tight bandaging over a thick layer of cotton wool, by Dr. Gehrung; a paper on The Early Symptoms and Signs of Phthisis, by Dr. Lemon; a brief paper on Congenital Cataract, by Dr. Chas. Denison; while Dr. F. J. Bancroft reports a case of vomiting of pregnancy, which became so severe and continued so long—to the end of the third year—that the patient became typhoid in her debility and depression. All efforts for relief proving useless, the first step toward the production of miscarriage—the introduction of a sponge tent into the neck of the uterus—was resorted to. As soon as the uterine neck began to be expanded the sickness ceased, the sponge was soon after withdrawn, and the patient completed her gestation without nausea or other inconvenience, and was delivered of a healthy child.

The volume closes with reports of cases—one of paraphymosis, by Dr. H. A. Lemon and by Dr. W. H. Williams, one of tumor in the hypogastrium, and one of strangulated umbilical hernia.

Altogether, the society may fairly congratulate itself on its growth, and the fact that it is doing substantial work.

The society has recently been incorporated.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By *Frank Hamilton, A.M., M.D., LL.D.*, Surgeon to Bellevue Hospital, New York; Consulting Surgeon to Hospital for Ruptured and Cripples; to St. Elizabeth Hospital, etc.; author of a Treatise on Military Surgery and Hygiene, and of a Treatise on the Principles and Practice of Surgery. Fifth Edition. Revised and Improved.

This treatise is so well known to the profession that its fifth edition certainly requires but a short notice at our hands. It would be idle, at this time, to commend a work,

which, for years, both at home and abroad, has been looked upon as the highest authority. The number of pages and wood-cut illustrations have been increased. In scanning the pages of the new edition, we notice (page 117), an example of *permanent* paralysis of the inferior dental nerve, from fracture near the angle of the bone. This case is an exceptional one, the nerve being seldom injured. In the other cases reported, the paralysis was of short duration.

In referring (page 205), to the difficulties of maintaining the two fragments of a broken clavicle in the original line of axis, the author objects to the opinion held by some surgeons, that it is quite as important to depress the sternal fragment, as it is to elevate the acromial. The accomplishment of this object is attempted, (1), by the inclination of the head toward the injured side; (2), by compresses and adhesive straps. The patient tires of the former, and the latter is inefficient. To Dr. Moore's method (bringing into requisition the clavicular fibres of the pectoralis-major, with the view of antagonizing the action of the sterno-cleido-mastoid, by thrusting the elbow behind the body), his objections are both practical and theoretical.

The practical objection is, that the dressings required to maintain the arm in position are exceedingly liable to produce excoriations. The results are no better than are realized from the use of his (Hamilton's) own dressings.

The theoretical objection is, that the clavicular fibres of the sterno-cleido-mastoid will soon become relaxed under the continual strain, and after a time, cease to accomplish what they did at first. Prof. Hamilton also suggests that if the pectoral muscle is thus rendered less competent to depress the sternal end of the bone, the sterno-cleido-mastoid will be rendered likewise less competent to elevate it, making some allowance, as he does, for the different angles at which these two muscles act upon the bone.

Moore's method, in our opinion, can not effect a "continual strain upon the sterno-cleido-mastoid muscle;" but whilst it does effect this in the case of the clavicular

fibres of the pectoralis-major muscle and thereby produce more or less traction on the sternal fragment of the fractured clavicle, it has no power in the case of the former muscle to enforce the well-known law in regard to the action of muscles put upon the strain. The author declares his preference for an apparatus consisting essentially of a sling, axillary-pad, and bandages to secure the arm to the chest, the arm hanging perpendicularly beside the body.

If we add to these the "posture treatment," when the danger of disfigurement would warrant a resort to it, the several indications seem to be fairly met. Fortunately, overlapping and deformity do not cause diminution of the strength or usefulness of the arm, except *in those cases where the cupidity* of the patient has been excited, and then "*the weakness*," "*the coldness*" and "numbness" of the arm can be cured by one specific only—money!

In the chapter on fractures of the scapula (page 214), Prof. Hamilton employs the terms "anatomical" neck, and "surgical" neck, the former being applied to that slightly constructed portion situated at the base of the glenoid cavity, and the latter to the part of the bone corresponding to the root of the coracoid process at the site of the semi-lunar notch.

The treatment of fractures of the surgical neck of the humerus, including separations at the epiphysis (page 242), is given at greater length. The author now recommends an additional splint to extend from the free margin of the axilla to the internal condyle. Its purpose is not to support the fragments, since it can not extend so high, but to protect the skin from injury by the bandage. He considers as wholly unnecessary, the bandage applied by some surgeons to the hand and forearm.

Prof. Hamilton has been somewhat minute in his description of this dressing, since its value, he claims, depends upon the care with which the details are carried out.

We think that the author has, in this fifth edition, done

the profession a service by indicating the methods by which a faithful measurement of the arm or forearm (page 256), and thigh (page 418), may be made. He recognizes not only the weak point in Bryant's suggestions to measure by the ilio-femoral triangle, in order to determine a fracture of the neck of the femur; but also the unsoundness of Velpeau's idea to measure from the folds of the belly. Doubtless the author has had abundant opportunities of noting the ease with which inaccurate measurements may be made.

In the chapter on fractures of the radius, there is some additional evidence that we have not yet attained to all that is desirable in the treatment of Colles' fracture. Moore's method has given no better average results than have been obtained by other modes of management.

The pages devoted to the treatment of fractures of the femur, tend to settle us more firmly in our convictions that plaster of Paris, as an immovable form of dressing, is by no means as safe as Buck's or Hamilton's apparatus. As ordinarily used, plaster of Paris is safe only in the hands of the experienced surgeon, it being highly injudicious to advocate its general adoption. Employed after the "book-back" or Bavarian method, it becomes more manageable. Upon the authority of Prof. Hamilton, the plaster is thus used by Dr. Paul F. Eve, Professor of Surgery, Nashville Medical College. Extension and counter-extension are made as in Buck's method, and the limb is exposed to view daily and sponged.

Part Second contains some new matter. Dr. John T. Darby, (page 586), by adopting a rule similar to that which the author has laid down, in reducing dislocations of the thigh, namely, by carrying the arm only in those directions in which it meets with the least resistance, has been very successful in reducing dislocations of the shoulder.

At page 600, the new edition gives the following summary of accidents growing out of efforts to reduce old dislocations of the shoulder:

"Rupture of an artery, nineteen cases, most of which

were known to be ruptures of the axillary artery. Callender, Lister and Blackman tied the axillary, and the patients all died. The subclavian was tied by Warren successfully. Gibson also tied the subclavian, but his patient died. Nélaton did the same—result not stated.”

“Rupture of vein alone, two cases. Froriep’s patient died; Agnew’s was saved.”

“Rupture of artery and vein, probably two cases. Platner’s patient died. In Bell’s case the result is not stated, except that amputation was practiced.”

“Avulsion of arm, one case. Patient died.”

Of fractures of the neck of humerus, the author has reported three cases. In none of them was reduction accomplished. His own patient died.

The difficulties which so frequently beset us in our efforts to reduce a certain proportion of these old dislocations of the shoulder, the author attributes to the changes which may take place in the socket and in the adjacent tissues. That a diminution in the size of the rent in the capsular membrane may resist the reduction of the bone, we saw illustrated not long since, at the Rush College Clinic, Chicago. A man with a dislocation of the shoulder of six weeks’ standing, presented himself at the college clinic. Prof. Gunn, after failing in every effort at reduction, including extreme circumduction for the purpose of lacerating the ligament and breaking up adhesions, cut down through the deltoid into the joint, and found the rent in the capsular so much contracted as not to admit the return of the bone to the socket. After sufficiently enlarging the rent with a probe-pointed bistourie, the reduction of the bone was easily effected.

J. E. O.

SYPHILITIC LESIONS OF THE OSSEOUS SYSTEM IN INFANTS AND YOUNG CHILDREN. By *R. W. Taylor, M.D.*, Physician to the Charity Hospital, N. Y., etc. New York: Wm. Wood & Co., Publishers. 1875.

He is a zealous adventurer who, in the present day, makes a voyage of discovery, where every nook and corner has been repeatedly explored before. Such, however,

has been the task of the author of this treatise. Long familiar with all the recognized varieties of venereal disease, he has discovered in the osseous system of infants a grave and distinct form of lesion, heretofore overlooked, or recognized only in the post-mortem condition.

Dr. Taylor observed his first perplexing case in 1867 ; and could then find in medical literature but a few details, given by Rannier, descriptive of its pathology. In the ensuing year Wegner published a description of the microscopic appearance of the bones of a number of syphilitic children, exhibiting peculiar pathological phenomena ; and, within the two following years, Waldeyer, Köbner and Parrot confirmed his observations, without, however, contributing to the clinical history and therapeutics of this form of disease.

The basis of the present work, which is really a continuation of the general subject, is a collection of clinical cases, valuable in themselves, and made of greater interest in consequence of the faithfulness evinced in their description. This collection includes not only the cases observed by Dr. Taylor, but those also of the observers referred to, and others.

Beginning methodically with the radius and ulna, the general characters of the changes in these bones are found to be those which are presented when the disease is elsewhere developed. If the outlines of these parallel shafts be traced downwards with the tips of the fingers, an abrupt circular elevation is discovered surrounding each, except at the point of osseous contact. This may be smooth or undulating, and limited to the shaft, or encroaching upon the epiphysis to about two-thirds of its extent ; when there is complete fusion of the epiphyses, it is the result of excessive cell-proliferation in the fissure between them. At the upper extremities of these bones this condition is less distinct, in consequence of the disposition of the parts, except at the olecranon. One or both bones may be affected, and may or may not present the swelling in common with the lower ends, in comparison with which they are less liable to become involved.

The humerus in general escapes. Dr. Taylor has observed the only case hitherto described in which the sternal end of the clavicle has been attacked. In rare instances a bulb-like projection, with an even outline, is encountered on the surface of one or more ribs.

Abrupt swellings, elevated to the extent of one-half or three-fourths of an inch, involving the shaft or merging into the epiphysis, are encountered about two inches above the malleoli. If circular, the bones are completely surrounded, their extremities remaining intact, but the resulting deformity being greater than at the wrist. Tumors of this kind at the ankle-joint are frequent, involving one or both legs, and attacking both bones or limited indifferently to either. These lesions have, in each instance, co-existed with others of the same class, especially in the fore-arm. Of the fourteen cases observed by Taylor, but one occurred with involvement of the superior termination of the tibia, and one also of the trochanter of the femur, the soft tissues surrounding this bone presenting an obstacle to its proper exploration. All the distal phalanges have been observed affected in this manner, the fingers presenting a bulbous and clubbed appearance, suggestive of syphilitic onychia. The central phalanges seem to possess some immunity, as no instance of their involvement has been described, though the author has observed an hyperplasia in this locality which might serve as a type of the disease, when thus developed. The proximal are more liable to be attacked, in the proportion of five to one, than the distal phalanges, the deformity being acorn-shaped and two or three times greater in size than the normal osseous tissue. The integument thus stretched may ulcerate, and this accident may be due to degeneration in the thickened bone itself. No instance has occurred of this disease in the phalanges of the foot, though there is no reason to conclude that they possess any special immunity. The fourth and fifth metatarsal bones have been observed affected in a similar manner, with this peculiarity, that the entire length of the bone has been involved, with

greatest development in the middle of the shaft. Of the flat bones, lesions of the cranial are infrequent—in four instances the parietal, and in three the occipital, have been affected; a behavior in striking contrast to that of hereditary syphilis in later life.

The clinical history, development, course, decline and concomitant symptoms of the disease are carefully sketched. In one class of cases there is rapid development of the lesion, in another it occurs with comparative slowness—the average period being from two to six weeks; the shortest, two weeks; the longest, two months. Uncomplicated cases, properly treated, rapidly assume the phases of repair. Degeneration may be superficial or deep—rarely the epiphysis becomes separated from the diaphysis. When a sinus forms, it gives exit to a secretion of a light brown color, which may be followed by rapid restoration of the normal conditions. Inasmuch as the tissues are yet yielding, and the disease is one of defective nutrition, pain is not severe. The constitutional disorder, in fact, is one which is early engrafted upon the growth of the foetus in the period of active development of all its tissues. Deep disorganization has been observed only in the still-born, the survivors may not present symptoms of the vice before the third week, and possibly not before the second or third year.

The author is at issue with Waldeyer and Köbner respecting the possibility of the development of these accidents in the acquired syphilis of infants. One such case Taylor has described, and, while admitting that this late occurrence may be less destructive to the tissues, he concludes that there is nothing in the immaturity and rapid evolution of the foetal tissues which renders them exclusively susceptible to the morbid agency.

Three pathological stages are distinct: 1st, Exuberant cell-proliferation; 2d, Irregular osteogenesis; 3d, Abnormal proliferation, with inter-cellular infiltration.

Cachexia, from whatever cause, predisposes to rickets, and one of these causes is undoubtedly the syphilitic

diathesis, but the symptoms and treatment of rickets, which is of later appearance than hereditary syphilis, are not similar.

Medical works too often conclude with an anti-climax, which results from the unequal advance of pathology and therapeutics, but the volume before us is a worthy exception to the rule. Our author employs mercury with the potassic iodide, continuing the medication for a long period if no improvement results. Salivation is never induced, nor a mercurial cachexia, the health being actually improved by pursuing this course, without having recourse to tonics, which, however, are not to be neglected. Lewin's method of hypodermic medication as well as inunction are discountenanced. Ulcers are sprinkled with iodoform.

The author concludes with a consideration of the tumors occurring later in life at the junction of the epiphyses with the diaphyses, as well as the more specific affections of the osseous system, simulating syphilis.

We regard the work, as a whole, in the light of an exceedingly valuable contribution, not only to the special department to which it might be assigned, but also to the general literature of medicine. We congratulate the author upon the evidences it contains of his scholarly and conscientious labor, which have already secured for it the encomiums of its most judicious critics.

BOOKS RECEIVED.

A MANUAL OF GENERAL PATHOLOGY. By *Ernst Wagner, M.D.*, Prof., etc., University of Leipzig.

MEDICAL DIAGNOSIS, ETC. By *J. M. Da Costa, M.D.*, etc. Fourth edition, revised.

INHALATION IN THE TREATMENT OF DISEASE, ETC. By *J. S. Cohen, M.D.*, etc. Second edition, revised, etc.

MEDICAL THERMOMETRY AND HUMAN TEMPERATURE. By *E. Seguin, M.D.*

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Volume fifth. Edited by *Jas. Tyson, M.D.*, etc.

TRANSACTIONS ILLINOIS STATE MEDICAL SOCIETY FOR 1875.

A SYSTEM OF MIDWIFERY, ETC. By *Wm. Leishman, M.D.*, etc. Revised edition.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By *J. Lewis Smith, M.D.*, etc. Third edition, revised.

- HOSPITAL PLANS: Five Essays on Hospital Construction, etc. **JOHNS HOPKINS HOSPITAL.**
- HUMAN PHYSIOLOGY, ETC. By *W. B. Carpenter, M.D., etc.* New and revised edition.
- INSANITY IN ITS MEDICO-LEGAL RELATIONS. By *A. C. Concuperthwait, M.D., Kansas City.*
- THE MEDICAL JURISPRUDENCE OF INSANITY. By *J. H. Balfour Brown, Esq.*
- SURGERY: ITS PRINCIPLES AND PRACTICE. By *T. Holmes, M.A., Cantab., etc.,*
- EXTRA-UTERINE PREGNANCY, ETC. By *J. S. Parry, M.D., etc.*

PAMPHLETS RECEIVED.

- THE SANITARY CONDITION OF BOSTON—Report of a Medical Commission, etc., 1875.
- TRANSACTIONS OF THE NEW JERSEY MEDICAL SOCIETY, 1766 to 1800.
- ON ALCOHOL: A Course of Lectures, etc. By *B. W. Richardson, M.A., M.D., etc.*
- PROCEEDINGS OF "AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES," at Hartford, Conn., Sept., 1875.
- THE CAUSE OF THE COMMENCEMENT OF PARTURITION. By *Charles M. Crombie, M.B., M.C., of Aberdeen, Eng.* From *J. Penington & Son, Phila.*
- THE PRINCIPLES OF PHYSIOLOGICAL ANTAGONISM, AS APPLIED TO THE TREATMENT OF THE FEBRILE STATE. By *Roberts Bartholow, M.D., etc.* This is No. 1 of Vol. II of "A Series of American Clinical Lectures."
- ON THE ADMINISTRATION OF DIGITALIS IN THE WEAK-HEART OF CONTINUED FEVER. A Paper by *E. T. Easley, M.D., etc.,* Little Rock, Ark.,
- ON AUSCULTATION OF THE OESOPHAGUS. A Paper by *Louis Elsberg, M.D., etc.,* New York.
- APHONIA: ITS CAUSES AND TREATMENT. A Paper by *William Porter, M.D.,* St. Louis.

ENCOURAGING!—The January number of the *Journal de Médecine et de Chirurgie Pratiques*, extracts from the *Philadelphia Medical Times* and the *Practitioner*, Prety's observations on the treatment of sciatica, originally published in the *Wiener Medicinische Presse*.

When the French journals look for the latest scientific researches of the Germans in American medical periodicals, we may well believe that the world moves.

DR. STEINER, of Prague, the well-known writer on diseases of children, died February 15.

THE SIXTH ANNUAL COMMENCEMENT EXERCISES of the Woman's Hospital Medical College, of Chicago, were held on February 29th, at the First Methodist Church, on which occasion the following ladies received the diploma of M.D. :

MRS. MARY H. BOWEN, Illinois.
 MRS. LOUISA M. GRONARD, Illinois.
 MRS. LOIS FITCH MANSFIELD, Illinois.
 MISS MARGUERET CALDWELL, Wisconsin.
 MISS EVA BICKFORD, New Hampshire.
 MISS AMIE M. HALE, Massachusetts.
 MISS HARRIET E. GARRISON, Illinois.
 MISS AMANDA M. RANSLOW, Wisconsin.
 MISS ADELIA BARLOW, Illinois.
 MISS HANNAH C. RUSSELL, Wisconsin.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, Apr. 3 and 17—Chicago Med. Society, regular meetings at the Washingtonian Home, 8 P. M.

Mondays, Apr. 10 and 24—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P. M.—Prof. Holmes.

At Chicago College, 2 P. M., *Gynecological*—Prof. Merriman.

At Central Dispensary (239 W. Van Buren St.), 2 P. M., *Gynecological*—Dr. Adolphus; 3 P. M., *Medical*—Dr. Bridge.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

TUESDAYS. SOCIETIES.

Tuesday, Apr. 11—Academy of Sciences, regular meeting, 8 P. M. (263 Wabash Ave).

Tuesday, Apr. 25—Medico-Historical Society, annual meeting at the Tremont House.

CLINICS. *Every Tuesday.*

At County Hospital, 2 P. M., *Medical*—Prof. Bevan; 3 P. M., *Surgical*—Prof. Bogue.

At Chicago College, 2 P. M., *Gynecological*—Prof. Roler.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Hollister.

WEDNESDAYS. CLINICS. *Every Wednesday.*

At County Hospital, 2 P. M., *Ophthalmological*—Dr. Montgomery; 3 P. M., *Gynecological*—Prof. Quine.

At Chicago College, 2 P. M., *Gynecological*—Prof. Nelson.

At Mercy Hospital, 2 P. M., *Surgical*—Prof. Andrews.

At Central Dispensary, 2 P. M., *Medical*—Dr. Bridge.

At St. Luke's Hospital, commencing at 1.30 P. M., *Surgical*—Dr. Owens.

THURSDAYS. CLINICS. *Every Thursday.*

At Chicago College, 2 P. M., *Gynecological*—Prof. Merriman.

At Central Dispensary, 2 P. M., *Diseases of Chest*—Dr. Ingals.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

FRIDAYS. SOCIETIES.

Friday, Apr. 14—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P. M.

CLINICS. *Every Friday.*

At County Hospital, 2 P. M., *Medical*—Prof. Bevan; 3 P. M., *Surgical*—Prof. Bogue.

At Chicago College, 2 P. M., *Gynecological*—Prof. Roler.

At Mercy Hospital, 2 P. M., *On Diseases of Eye and Ear*—Prof. Jones.

At Central Dispensary, 2 P. M., *Gynecological*—Dr. Adolphus.

SATURDAYS. CLINICS. *Every Saturday.*

At Rush College, 2 P. M., *Surgical*—Prof. Gunn; 3 P. M., *Diseases of the Brain and Nervous System*—Dr. Hay.

At Chicago College, 2 P. M., *Gynecological*—Prof. Nelson; *Surgical*—Prof. Andrews; 3 P. M., *Medical*—Prof. Davis.

 At all the above Clinics visiting regular practitioners are, we believe, admitted.

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Original Communications.

ABNORMALLY LARGE SUPERIOR STRAIT, A COMPLICATION OF LABOR.

By J. SUYDAM KNOX, M.D., CHICAGO.

At first sight such a statement would appear a contradiction, for with apparently greater facility of exit, one would expect more rapid delivery. The following six cases, however, while too few to make the statement a truism, go far to establish its correctness.

The six patients referred to below were all ladies simply exercising household supervision, and doing no manual labor. They were also all primiparæ.

CASE 1. Mrs. T——, æt. 24, a tall, slender blonde. Labor commenced Aug. 11, 1871. Vaginal examination revealed the head presenting, enclosed in the womb, and resting upon the perineum; os tinæ moderately far back towards coccyx, and undilated; uterine contractions energetic, frequent and regular, and exceedingly painful. No progress being made during several hours, nauseating doses of tartarized antimony were administered, and subsequently $\frac{1}{2}$ gr. morphia hypoder-

mically. Under the influence of the opiate, the uterine os was brought forward and dilated, and the membranes ruptured. The first stage of labor had lasted twenty-four hours, the second stage was completed in two hours.

In this case there was but little obliquity of the womb. The os tincae was dilatable but did not dilate. No bag of waters formed.

CASE 2. Mrs. H—, æt. 23, undersized, slender blonde. Labor commenced about term, July 19, 1872, caused by the unexpected breaking of the waters during sudden fright. Vaginal examination revealed the uterus very low down in pelvis, os tincae far back in hollow of sacrum; vertex presenting; patient hysterical, with feeble and irregular uterine contractions. Administered $\frac{1}{4}$ gr. morphia hypodermically. After a sleep of six hours uterine expulsive pains came on regularly and energetically, and continued so for seven hours, when delivery was accomplished. Child weighed $4\frac{1}{2}$ pounds.

In this case, owing to accident, there was no first stage of labor. The second stage was evidently prolonged through seven hours, by the low position of the womb. The uterine os, though flaccid, would not dilate, and the strong pains seemed to have no expulsive power. The use of forceps was forbidden.

CASE 3. Mrs. K—, æt. 28, slender, medium-sized blonde. Examination of urine thirteen days before labor showed no albuminuria. Labor commenced Oct. 8, 1873. Vaginal examination revealed uterus enclosing foetal head resting upon perineum, os tincae easily reached and dilating. Labor progressed favorably for four hours, when, without warning, a severe convulsion occurred; patient immediately bled about twenty ounces, and delivered with forceps. One-half grain morphia then injected hypodermically. Made a good recovery.

In this case, the patient was extremely small during pregnancy, even at term giving scarcely any external evidence of her condition. This was due to the low posi-

tion of the womb and the absence of any obliquity of the organ. Had convulsions not occurred, delivery would have soon been accomplished naturally. The extreme and unnatural descent of the womb, however, undoubtedly caused pressure upon the ureters, and produced the uræmia and convulsion. Albuminuria existed for several days after labor, and the urine was loaded with uric acid crystals.

CASE 4. Mrs. McD—, æt. 25, a full-sized brunette. Labor commenced April 7, 1875. Vaginal examination revealed foetal head within uterus resting upon perineum, os tinæ not to be felt; uterine contractions strong, frequent, regular, and very painful throughout labor. Persistent effort at last engaged two fingers in the uterine os, which was brought forward between the pains. As soon as sufficiently dilated, the membranes were ruptured and the labor completed. First stage of labor, eight hours; second stage, two hours.

In this case, the same conditions, of dilatable but undilating os, and non-expulsive though severe pains, existed.

CASE 5. Mrs. S—, æt. 21, tall, slender brunette. Was called in ten days before labor on account of extreme general dropsy. Examination of urine revealed small amount of albumen. Prescribed 3 drachms daily, of bitartrate of potassa largely diluted, and full doses of quinine and iron. Labor commenced May 3rd, 1875; at that time dropsy much diminished and no albuminuria. Vaginal examination revealed the same conditions as in Case 4, and the labor was in every way similar, the first stage lasting twelve hours, and second stage two hours.

In this patient, we have the conditions existing in Cases 3 and 4, viz.: dilatable but undilating os; strong but non-expulsive pains; and compression of the ureters, producing dropsy and albuminuria.

CASE 6. Mrs. E——, æt. 26, medium-sized, slender brunette. Was called to see this patient thirteen days before labor on account of extreme general dropsy; her face, neck, hands and lower extremities were largely œdematous, and the genitalia so swollen as scarcely to admit of vaginal examination. For the few last days had suffered from dizziness and momentary attacks of blindness; was also asthmatic; the urine a few days before had been tested and found normal; some, now drawn off, was found to be largely albuminous. Prescribed iron and quinine, and drinks of solut. bitartrate of potassa. Nov. 30, 1875, labor commenced; at this time the dropsy, especially of the genitalia, was still enormous and the urine albuminous. Vaginal examination discovered the foetal head, within the womb, resting upon the perineum, and the os tinæ far back in the hollow of the sacrum. As labor pains had already existed twenty-four hours and patient was restless and nervous, I administered, per orem, 45 grs. chloral hydrate; assisted by its influence the uterine os was brought forward. The foetal head was then allowed for six more hours to drive upon the perineum, to expel, if possible, the œdema; a slight convulsion then occurred; 30 grs. additional hydrate of chloral were administered, the membranes ruptured and forceps applied; a living child was delivered, and the perineum lacerated to the sphincter ani. For six days subsequently there was retention of urine, requiring the daily use of the catheter. Duration of first stage of labor, thirty hours.

In this case, the vilest I ever attended, there were the same conditions of dilatable but undilating os, and severe and painful but non-expulsive uterine contraction.

In reviewing these cases, two things are noticeable:

1. The increased length of the first stage of labor.
2. The albuminuria which complicated one-half of them.

1. The prolongation of the first stage of labor is traceable directly to the non-expulsive character of the

pains, and the non-dilatation of the os tincæ; and indirectly to the abnormally large diameters of the superior strait.

Without entering into particulars, it may be said of a labor pain, during a strictly normal labor, that the circular uterine fibres by their contraction diminish the transverse diameters of the womb, while the longitudinal fibres by synchronous contraction diminish its long diameter. In this way the waters are forced down into the cervix, upon the protruding membranes, to dilate the external os, at the same time that the womb, fixed upon the body of the child, tends to draw itself up over the foetal head, thus making the pain expulsive. In other words, the contractions of the circular fibres are mostly compressive and tend to drive out the waters, while the contractions of the longitudinal fibres, using the fundus as a fulcrum, are mostly expulsive and tend to drive out the child. Both tend, during the first stage of labor, to dilate the os tincæ, and a successive repetition of them finally ruptures the membranes and completes this stage of labor.

In the class of cases under consideration, however, a different condition of things exists. The womb has descended low into the true pelvis. When now a uterine contraction occurs, the longitudinal fibres caught midway between the foetal head and the pelvic brim are strongly compressed and fail to contract. Thus the long diameter of the womb is not diminished, and the pain is not expulsive. This annular compression of the uterine walls is extremely painful, and thus arises another factor in restraining the expulsive force of the contractions. In the six cases reported, each patient complained of agonizing pain with each uterine contraction, located principally in the groins and back. It was impossible to bear down, or in any way to assist by voluntary effort the labor of the womb.

The non-dilatation of the os tincæ can now readily be accounted for. The longitudinal uterine fibres which

should expand it over the foetal head are powerless, at the same time the circular fibres are active and render it rigid with each throes of parturition. Still further, two mechanical obstacles effectively prevent the formation of a bag of waters. The foetal head, accurately fitting the superior strait, lined, as it is, with the muscular tissues of the womb, prevents all egress of amniotic waters, and holding the os tincae firmly against the perineum or in the hollow of the sacrum permits no protrusion of the membranes. These are the reasons why, in all the cases above recorded, the os was invariable in its rigidity and small orifice during the uterine contractions, however dilated and relaxed it may have been in the intervals between the spasms.

With such results, it is not difficult to go back to the remote cause, and see how an abnormally large pelvic brim can render the first stage of labor tedious and painful.

2. I take it, however, that there is a much graver complication of labor growing out of this condition, namely: albuminuria, with or without general oedema.

Of the six cases reported, 50 per cent. had albuminuria and $33\frac{1}{3}$ per cent. eclampsia. The per centage is suspiciously large. It is, however, more noticeable, when it is considered that these six cases are the only ones of the kind in 185 recorded cases of labor, and that in these 185 cases there were but six cases of puerperal eclampsia (a large proportion). In other words, one-third, or $33\frac{1}{3}$ per cent., of all the cases of eclampsia in 185 labors, could apparently be traced to an abnormally large superior strait, and a low position of the gravid womb in the true pelvis. I know that the number of labors is too small to furnish accurate and positive conclusions, but as before said, the percentage is suspiciously large. One could reasonably suppose that the position of the womb had much to do with the albuminuria and convulsions.

If the commonly received opinion be true, that renal congestion be due to direct compression of the kidneys or of the renal veins, one would suppose that, with a womb so low in the pelvis, such pressure would be at a minimum, and would reasonably expect a decreased tendency to albuminuria—a conclusion exactly the reverse of true. Again, in all pregnant women there is always a certain average amount of pressure from the gravid womb upon the abdominal contents. Why then should one escape albuminuria more than another? The question becomes more pertinent when we find that those with uteri abnormally large at term, have no special tendency to nephritic congestion, unless from downward pressure œdema is superadded. Indeed, to my mind it is doubtful if nephritis often originates in this manner. The spinal column is so prominent in the abdominal cavity, that it must receive to a large extent the full force of the backward shove of the uterus; while the kidneys, spared through the globular shape of the womb, and their own encasement in adipose tissue, lie safely in the hollows each side of the spine. Further, the inferior vena cava lies to the right of, and below, the prominence of the spine. Thus the right renal vein is safe from pressure, while the left, crossing the spine above the summit of its forward lumbar curve, can scarce be compressed by the convex fundus, owing to the obliquity of the womb forwards.

I prefer to think, that albuminuria is oftenest caused by pressure upon the ureters; either as they escape over the brim of the pelvis, or as they discharge themselves into the bladder, thus obstructing the outflow of urine, and starting backward the train of symptoms whose frequent culmination is eclampsia. The comparative rarity of puerperal convulsions, and their special predilection for primipara, can thus, I think, best be accounted for.

The conditions most favorable for such compression are found in the six cases reported, and while these cases are but about three per cent. of the recorded labors from

which they are taken, they furnish over thirty-three per cent. of the cases of eclampsia.

Finally, the six reported cases were all primiparæ. In such, similar conditions exist for the compression of the ureters beyond what is found in multiparæ, but from a different cause. It would be a mistake to suppose that the resistance to the growing womb of the firm and unrelaxed abdominal walls was only, in direction, from before backward. It is rather from every side inward and downward, thus keeping the womb wedged into the brim of the pelvis, and directly pressing upon the ureters as they escape into that cavity.

No. 16 LOOMIS ST.

KATHERINE HOHMANN.

A DESCRIPTION OF THIS REPUTED HERMAPHRODITE.

By EDW. WARREN SAWYER, M.D.,

LECTURER ON OBSTETRICS, RUSH MEDICAL COLLEGE, CHICAGO.

This person, who has been exhibited before the Chicago Society of Physicians and Surgeons, by Prof. Byford ; and by myself made the subject of a recent lecture at the Rush Medical College, has for many years been known as an instance of bisexual hermaphrodism. He has also been exhibited before many distinguished medical gentlemen of Europe, and been frequently described in medical literature.*

It will be proper to speak of this creature as being of the masculine gender ; inasmuch as he is now a husband, and comports himself in all respects as a male ; and because a careful external examination, and interrogation, fail to elicit a single attribute belonging strictly to the feminine sexuality.

He is now fifty-two years of age, was born in Germany,

* Hermaphrodism, From a Medico-Legal Point of View. By Basile Poppesco. Translated from the French by Edw. Warren Sawyer, M.D. W. B. Keen, Cooke & Co. Chicago, 1875.

and christened Katherina. This name he bore till two years since, when, by a decree of the German court, it was changed to Charles. He was reared as a girl ; and, as he now asserts, more than once copulated as a female. Menstruation began before the age of twenty, and recurred with measurable regularity. Nothing unusual was noticed in his sexual conformation till the age of thirty-six, when, on account of a strangulated inguinal hernia, he says, he was seen by Simon, of Heidelberg, who operated. Attention was then drawn to his sexual mal-formation ; and it was decided that he belonged to the male sex, rather than to the female. From that time he has worn the habiliments of the male. At the age of forty-four, menstruation ceased. The organs which mark him as a male now took on a rapid growth, and soon became a third larger than before. About two years since, he married his present wife, now twenty-six years old ; who was advised to escape the dangers of child-bearing, on account of a deformed pelvis. His marital privileges are now so well assumed as to call forth from his wife the highest encomiums. His predilections have always been for the woman. The foregoing is substantially his history, which has been elicited from himself and his companion.

His statue is that of a medium-sized man. The feet are rather small ; but the hands are large. The extremities on the right side have a circumference a trifle larger than the left extremities. His right eye is noticeably larger than the left, and of a different shade ; while the left pupil is larger than the right. The skin is decidedly less fine than that of the female, and it seems even coarser than that of the cleanly male. His dark hair is very thick, and reaches nearly to his shoulders. His figure is rather a compromise of the male and female ; though it has been remarked that the ilia were rather projected outward. The loins and waist are decidedly masculine. His carriage is rather feminine ; perhaps on account of his being attired so long as a female. The entire surface is well supplied with hair follicles ; the pubic hair extends

upward along the median line as far as the umbilicus, as it usually does in the male ; and is not abruptly limited, just above the symphysis pubis, as in the female. Moreover, the chin and upper lip are thickly studded with beard, and the sides of the face sparsely so, which is regularly shaven. His axillæ are supplied with hair, and the anus is also surrounded with hair. He has two, well-developed, rather pendulous mammary protuberances ; these are surmounted by large, projecting nipples, resting on small, dark, reddish-brown areolæ ; the latter are studded with hair.

Concerning the genitalia : On the right side there is a small scrotum, corrugated and covered with hair ; in all respects this pouch is quite like the right half of the male scrotum ; it encroaches somewhat upon the left side. In the scrotum a good-sized testicle, with its epididymis and vas deferens, can be easily established. On the left side there is no projecting fold suggestive of the scrotum or labium ; the surface is here covered with hair. In the normal situation there is a penis which, in the lax condition, measured along the dorsum, is about three inches in length, and of average volume. The penis terminates in a well-formed glans, which is covered superiorly by a lax cutaneous fold like a hood. The virile organ is said to assume a length of six inches during sexual excitement ; it does not project outward ; because, on account of the absence of the anterior half of the corpora spongiosa, the organ seems to be bound down inferiorly. The bulbous portion of the spongy bodies can be easily made out beneath the penis. Along the dorsum of the penis, there are two, slightly projecting cutaneous folds, with an indurated edge which, in the lax condition, is thrown into many plicæ. These folds converge, and nearly meet at the root of the penis ; at this point the skin is so lax that it can be easily lifted from the penis ; the folds then strongly resemble the nymphæ of the female. The right nymphæ is as large as the left. There is a hypospadiæ slit beneath the glans penis, about a half inch in

length. If a sound is placed in this slit, and directed downward, it enters a round opening having the size and appearance of the female meatus urinarius. This opening looks upward, and is on a plane anterior to the root of the penis; it is brought to within an inch of the end of the organ by the turning downward of the penis. It is through this opening that the catamenial blood is said to have escaped, and through which he copulated as a female; and which now gives exit to the urine and the liquor seminis. The sound introduced into this meatus can be passed downward about an inch (the subject being in the sitting posture), when it is arrested, and seems separated from the finger externally by a thin septum. If the handle of the sound is now depressed, the instrument passes backward, and slightly upward, some two inches; it does not enter the bladder, for no urine flows through a catheter thus introduced. The subject does not permit any farther examination with the sound.

In the left groin there is an oval-shaped body, as large as a pullet's egg. This body is movable; and when seized between the fingers is painful, giving him a sensation which he likens to that which he experiences when his testicle is squeezed. I failed to find any evidence that he had ever submitted to a cutting operation for the relief of a strangulated hernia.

Relying upon the foregoing, which is all that can be elicited from an ordinary examination, the question may well be asked: Is this, indeed, an instance of androgynia, (the association of the essential male and female organs in the same creature,) and not a mal-formed man, with cryptorchidia and hypospadias? It seems to me, that, from this examination alone, one is forced to decide upon a male sexuality. Even the presence of the pendulous mammæ does not preclude this; for instances are known of men who have had mammæ sufficiently developed to afford nourishment to a child.* Especially has

* Vide Flint's *Physiology of Man*, Vol. 3, page 73. D. Appleton & Co. New York, 1870.

this unusual mammary development been noticed if the male is the subject of cryptorchidia, or has been emasculated in early youth.

The supposed female sexuality of this creature is founded solely upon the assumed menstruation. There can be no doubt but that he is thought to have menstruated; for in the scientific description of him in the *Lo Sperimentale*, referred to by Poppesco,* the function of menstruation is assumed to have existed. Moreover, men as eminent as Recklinghausen, Kölliker and Scanzoni, are reported to have said that they have seen blood escape from this man's urethra; and that this blood possessed all the microscopical appearances of catamenial blood.

A doubt has been raised by some as to the possibility of copulation being accomplished through this narrow meatus. The fact that there are authenticated instances of the female urethra being the habitual avenue of copulation, should protect this man's assertion from total discredit.

But in view of the facts: first, that this creature does possess the essential characteristics of the male—for his semen, which has been examined by Virchow, contains numerous spermatozoids; second, that there is a possibility that the blood which escaped periodically from the urethra may not have been true menstrual blood—for this creature soon realized that he was the subject of great wonder, and might have easily inflicted some slight wound of the canal, sufficient to have produced an oozing of blood; moreover, the microscopical appearances of menstrual blood are, by no means, thought by all to be distinctive. In view of these facts, I say, it seems more rational to call this a mal-formed man, with hypospadias and incomplete cryptorchidia. Or, at most, we must allow this creature to remain unclassed, until a *post-mortem* examination shall establish, beyond doubt, the presence of the essential organs of the female, the uterus or the ovary.

* Poppesco, op. cit., page 40.

CASES OF ECCENTRIC EPILEPSY FROM IRRITATION
OF THE GLANS PENIS.

BY W. R. McMAHAN, M.D., HUNTINGBURG, IND.

The causative agent in each given case primarily is either centric or eccentric. In the former we suppose that there is, and has been, some subtle molecular change in the nerve cells in the region of the base of the brain, and this change is of such a nature, degree and intensity as to assume the full rounded form of a cause, fully adequate to the production of epilepsy. But it is to the eccentric causes of epilepsy that I wish to direct attention; and here we find that we are not thrown, in all cases, on the unguided drift of supposition, as in the former (centric causes); but that we can often localize and demonstrate the causative agent, and, as such, disrobe it of its power, or remove it from the temple it is despoiling.

But we will proceed to the enumeration of the stereotyped eccentric causes, as follows: "Mechanical injuries to some sentient nerve, or its inclusion in the contraction of a cicatrix; irritation of the intestinal canal from worms or indigestible matters; and a morbid condition of the genital organs." These, in their broadest sense, constitute the principal eccentric causes. "Cases arising from the first enumerated cause may occur at any age." Cases arising from the second have been, and I think rightly too, confined to the age of childhood; but the cases arising from a morbid or irritated condition of the genital organs have been, as I conceive, erroneously confined to the age of puberty, and excluded as a causative agent in the epilepsy of children, where it yields a large percentage of cases.

My attention was first called to this subject by the report of Prof. Sayre, to the American Medical Association, of a number of cases of reflex paralysis caused by the irritation arising from phymosis and adherent prepuce to the corona of the organ. And then, reasoning

from analogy, I came to the following conclusions: That if this abnormal condition of the genital organs could, and had, produced, in a given number of cases, anæmia of the spinal cord, and, as an effect of that, paralysis of the inferior extremities, the same cause might, and most probably would, in a certain number of cases, produce epilepsy, or any other nervous manifestation that is susceptible of having an eccentric origin.

Again, Sir Thomas Watson, in speaking of the causes of epilepsy, enumerates: debauchery of all kinds; the habitual indulgence in intoxicating liquors; and, above all, the most powerful predisposing cause, not congenital, is masturbation. Sir Charles Locock attributes the great increase of the disease, during late years, to the last named cause.

Now, if these opinions of these great men are correct, that masturbation will produce irritation of the sentient nervous system sufficient to produce epilepsy in the adult, then we are forced to the conclusion that irritation of the genital organs, in a greatly diminished degree, would produce epilepsy in childhood, a time when the over-sensitive nervous system stands trembling on the brink of convulsions, only awaiting a slight jar or nervous discord to precipitate an attack. Now, the irritation arising from phymosis, or the accumulation of smegma behind the adherent bands of the prepuce in the male, or from an abnormal condition of the genital organs in the female, producing a degree of irritation equal in intensity to that of phymosis or adherent prepuce in the male, is, in my opinion, fully adequate to produce epilepsy in childhood.

The foregoing conclusion I consider verified in the following two cases:

CASE I. C. D., a well-developed, round-faced, good-looking boy. His parents state that he was in good health until January, 1874, when, without any premonitions whatever, he was seized with a severe convulsion, characterized by perfect loss of consciousness; a con-

tracted, trembling condition of voluntary muscles; grinding of teeth, and foaming at the mouth. This condition lasted from one to two minutes, when relaxation commenced, which merged into stupor of several hours duration, when he awoke rational. His penis was now noticed to be erected, and on examination (by his parents), found in an irritated condition. He had several seizures during the first two days, and then none for several weeks, when the cycle was repeated.

This order of activity and repose continued unabated under the bromides and various other forms of treatment, until April, 1875, at which time, his parents state, his penis was in a state of irritation, and that considerable pus escaped from the preputial orifice, after which his convulsions ceased in the main, leaving only a light "*Petit mal*" variety, separated by long intervals.

On December 22, 1875, I examined his genital organs, and found a long redundant prepuce, and partial phimosis. The prepuce was retracted over the corona with great difficulty. After its retraction, the crease behind the corona was found in a suppurating condition. On the sides of the corona were suppurating spots, marking the site of former adhesions of the prepuce to the corona. The entire crown of the organ was in a red, irritated condition, but contained no imprisoned smegma or pus.

After the examination, I ordered the prepuce retracted once each day, parts cleansed, and then sponged with some mild astringent. At this time his father states that the irritation has subsided, and that there are no symptoms whatever of epilepsy.

The analysis of this case I conceive to be this: At the time of his first seizure, there was either adhesion of the prepuce to the corona of the organ, or the prepuce enveloped the crown so closely that the heretofore accumulated smegma (and perhaps pus) could not make its escape, acted as a foreign body, irritated the sentient nerves, and through these the convulsive centre or centres. That this condition continued until last April, when the adhesions or resistance gave way before the imprisoned

matters, and they made their escape; these sentient nerves were no longer teased; the cause was removed, and the boy recovered.

CASE II. Chas. Fisher was attacked with epilepsy on April 7, 1874. Up to that time he was a well-developed, good-looking, bright boy, and enjoyed uninterrupted good health. His attack was of a sudden character, and not preceded by any premonitions; marked by about the same characteristics as the former case, as regards the frequency, duration and intensity of the attacks; and this order continued, in modified form, under large doses of the bromides, and other treatment that seemed to be indicated, until the 27th of December, 1875.

On December 21, 1875, I examined his genital organs, and found firm adhesions just behind the meatus urinaris; and on Dec. 27, 1875, I separated these adhesions and retracted the prepuce, behind which was imprisoned smegma in considerable quantity, and the parts were in a state of irritation.

From the date of his attack until this time, he had gradually grown dull and listless; was clumsy, irascible, and his eye, at times, generally preceding his attack, would assume the appearance of a fish's. His parents state that before, during and after these groups of convulsions, he would complain of his penis, and that it was often in a state of erection. After the breaking up of adhesions over a month ago, all medication was suspended, and at present he is well; has not had a single symptom of a convulsion since; has regained his former activity, and his eye its wonted expressiveness. The change in his condition is so great that I have no fears of a return of his trouble.

I regret that I did not make an ophthalmoscopic examination of his eyes prior to operating, and at a time when his eyes wore a "fish-like" appearance. This appearance of these organs must have depended on a departure of the circulation from a normal standard, dependent on disturbance of the sympathetic system.

INTRA-CAPSULAR FRACTURE OF NECK OF FEMUR.

BY T. J. MAXWELL, M.D., OLENA, ILLINOIS.

(Read before the Military Tract Medical Society, Jan. 11, 1876, at Galesburg, Ill.)

I wish to lay before this Society a single clinical observation upon a subject that Sir Astley Cooper put to rest more than half a century ago. I refer to the subject of fracture of the neck of the thigh bone within the capsular ligament. As my case, in its treatment and results, conflicts with the teaching and experience of the great master, I approach the subject with the most profound respect for his genius and great learning, and hope you will not think me presumptuous.

Sir Astley doomed every man and woman who should be so unfortunate as to suffer from a fracture within the capsular ligament of the femur to a life of halting and deformity. Indeed, such was his experience without exception, and such has been generally that of the profession since his time.

With these prefatory remarks, I proceed to give the history of a case that came under my observation, the method of treatment, and its results, together with some remarks on the subject.

Mrs. J. G——, æt. 50, on the morning of Jan. 14, 1871, slipped and fell upon the hard, icy ground while attempting to go up a short inclined plane, striking on the right hip. She said she felt somewhat stunned, but did not suspect any serious injury until she attempted to rise, and then discovered that she was unable to use her right leg. She immediately called for assistance, and was carried into the house and laid on a pallet on the floor, where I found her about one hour after the accident.

On examination, I found the foot of the injured side everted, lying on its outer edge. Free motion of the limb in every direction, rotation and flexion of the thigh upon the pelvis, could be accomplished without trouble

or the application of much force, though with considerable pain to the patient. By measuring the limb from the anterior superior spinous process of the ilium to the internal malleolus, it was discovered that the injured leg was fully one inch shorter than the other.

The leg could easily be extended to its full length, and on rotating a little in that position crepitation was developed. The lady was of thin, spare habit, and afforded an excellent opportunity for free examination about the articulation. I could grasp the trochanter major in its entire extent to the neck of the bone, and follow all its movements. There was but little swelling, and a moderate degree of pain on handling. One marked feature of the appearance and feel of the hip, was the flattening in the region of the trochanter major, which was in no way improved by extending the leg to its full length. Grasping the trochanter and rotating the leg showed that it did not describe the arc of a circle like the uninjured one, but rotated on its own axis, or nearly so. I applied Day's splint for fractures of the thigh. Had no trouble in getting the leg to its normal length; but that flattened condition of the trochanter was unchanged, and she complained of pain and uneasiness in the region of the hip and groin constantly.

I continued this appliance for ten days, and then determined to change, as it did not accomplish the purpose, that is, to keep the parts in coaptation.

Accordingly, the splint was removed, and the following treatment substituted: A pulley was fixed to the foot of the bed, and another to the side about the centre. The foot was elevated about nine inches on the front and about six on the back, and the front side of the head about three, so that the tendency of a person lying on the bed would be to slip to the head and back part. The patient was then placed in bed, and extension made by means of a weight attached to a cord passing over the pulley at the foot of the bed, and fastened to the ends of the adhesive straps which extended beyond the heel.

These adhesive straps were applied to the whole length of the thigh and leg, and, of course, covered by a bandage from the toes to the body. The lateral extending bandage, about four inches wide, was then passed around the thigh close to the body, and fastened to a cord which was carried over the pulley at the side of the bed, to which was suspended a tin bucket for weights. Weights were gradually added to the bucket at the foot until the leg was brought and kept at its normal length, and the lateral extension was increased, until the trochanter major could be grasped by the hand and felt to be as prominent as that on the well side.

The weight required to accomplish extension was about twenty pounds. For lateral extension—to lift the trochanter from its position against the posterior lip of the acetabulum—about twelve or fourteen pounds.

As soon as the lower fragment was brought out to its proper position, all pain ceased, and was not afterwards complained of during the long term of confinement.

She remained in bed with this apparatus until the fourteenth day of March, just two months to a day from the date of injury. When it was removed, motion and adhesion of the part appeared perfect. The adhesive straps, by which extension was secured, caused some slight abrasions of the skin; the knee joint was swollen and painful, and it was several weeks before it resumed its function so as to be useful.

The leg maintained its normal length at the time of the removal of the dressing, and the lady walks to-day with the least perceptible halt.

I claim no originality for this mode of treating this kind of fracture, as the plan was fully set forth and illustrated by a wood cut, in a late number of the *American Journal of Medical Sciences*.

I venture to ask, may it not be more the inability of the surgeon to maintain the fragments in coaptation—as Prof. Gross states that no means yet known to the profession accomplishes this perfectly—rather than a

physiological impossibility for the parts to unite by bony union, as claimed by Sir Astley Cooper? Had I followed that great master in the treatment of my patient, she would have undoubtedly become a cripple, and gone halting the balance of her life.

I do not think it possible to have had as good results follow the first appliance in this case. If by this report I shall induce the members of this Society to investigate the subject, and prove it good or bad, my object will have been fully accomplished.

GANGRENOUS ERYSIPELAS.

By M. A. McCLELLAND, M.D., KNOXVILLE, ILL.

(Read before the Military Tract Medical Society, Jan. 11, 1876, at Galesburg, Ill.)

CASE 1. Mrs. Hamerstrom, aged 50 years, while digging potatoes, wounded her foot very slightly with the tine of a potatoe fork. Three days after I was called in to see her, and found the foot swollen, hot, red and tender. At a point near the ankle, and at another near the seat of wound, there were appearances that led me to suppose one or two abscesses were forming. I the more readily made out this diagnosis, as the tissues were very tense, and did not pit under pressure.

Directed a saline cathartic, and applied locally lead water and laudanum.

The next morning the redness was more intense, and had extended up the limb two-thirds of the way to the knee; foot pitting.

Directed, the salts having acted well, tincture iron and quinine, gtt. xx, gr. ij, every three hours. Limb to be painted with tincture iodine; lead water and laudanum continued; morphine. Third day, a large blister had formed upon foot and ankle. Stopped local applications of iodine, lead water, etc., and directed a solution of

pot. permanganate 3ij, ad aq. 3j, with which foot was to be constantly wet.

The discharge from the wound, and also the contents of the blister, were a thin, watery fluid, containing flocculent, grayish matter. Morphine continued, to procure sleep and allay pain, which, however, at no time was very severe.

4th day. Foot and limb, as high as the knee, blistered. The surface around ankle, which first blistered, is becoming gangrenous. Quinine and iron continued. Limb to be kept constantly wet with solution of pot. permang.

5th day. Gangrene extending. A dense, gray slough forming at bottom of blisters. Treatment continued, with addition of egg-nog.

7th day. Gangrene does not spread. It now includes all the external half of the dorsum of foot from around the ankle to the toes. Several smaller patches upon the inside of the dorsum. Deep, grayish sloughs have cut off small islands of semi-healthy tissue, and are undermining them. Several have been thus separated from below, and lie upon the sloughs as black, fleshy masses. Saturated solution of bromine applied every hour. Iron and quinine continued, also stimulants and concentrated nourishment.

9th day. Sloughs separating. Red granulations appearing at edges of ulcers. Treatment continued.

12th day. Sloughs being thrown off in large masses. Dorsalis pedis lies uncovered for the space of an inch, and is covered with healthy granulations. Locally a weaker solution of bromine, the parts to be first cleansed with pot. permang. 3j, aq. 3j.

The above patient was an enfeebled, broken-down woman. Her hygienic surroundings were pretty good. The case was marked throughout by a very regular circulation, and with but slight febrile manifestations. Pulse never went to a hundred. Tongue remained moist throughout. No delirium. Prognosis now is quite favorable.

CASE 2. S. M., aged 52 years. Was called to see patient July 31, 1875. He gave the following commemorative history : Was pitching hay during the week, and one day, while it was raining, he went to sleep in the hay mow, and slept most of the afternoon. Woke up with headache and a good deal of pain about the left pectoral muscle. Headache and pain still continued, in addition to which he was now feverish ; anorexia marked ; no chills. Had taken some pills, which had operated.

I found him with a dry, red tongue, pulse 90 per minute, somewhat feverish, and with considerable soreness in left pectoral muscle. Diagnosed a threatened attack of typho-malarial fever, with perhaps some rheumatic trouble about pectoralis.

Left him bromide of potass. for headache, and quinine gr. v. every three hours. He was to have his clothing and bed-linen changed every day, and to be well sponged off with water of such a temperature as was most agreeable several times a day.

I saw him again the next day, and found no change. Treatment continued, with the addition of acid. sulph. aromat., ten drops with each quinine powder.

Saw him again August 3d, when I found him free from headache. Soreness had left breast and had settled in the left lumbar region, which, upon examination, was found to be swollen. He was directed to poultice the part and continue the quinine and acid in smaller doses. Was not to see him again till the 5th, but on the morning of the 4th he sent for me on account of retention of his urine. He had taken gr. $\frac{1}{4}$ of morphine the night before, for the purpose of promoting sleep. I introduced a No. 10 catheter and drew off a quart of water, which presented a healthy appearance, except it was slightly darker than normal. Treatment continued, with the addition of a mild cathartic. Lumbar abscess diagnosed.

On the 5th of August cathartic had acted. Appearance of an abscess more marked.

Dr. Reece, of Abington, Ill., was sent for and saw him

the morning of the 6th, and confirmed the diagnosis. Advised iron to be added to quinine. Patient's urine had still to be drawn with catheter. The sense of fluctuation was very obscure, and inasmuch as patient was not suffering much, he was advised to continue poultice another day. He had taken two pills the night before, at his own suggestion, and had reported them this morning. These had not yet operated.

On the 9th day (Aug. 7), there appeared upon his back, at some distance from the focus of swelling, two black spots about half an inch in diameter. Over the swelling the skin had become brawny, and a number of yellowish pimples appeared, just as in cases of carbuncle. He was ordered to continue treatment, and to take an abundance of nourishment and egg-nog. Pulse about 100 per minute.

10th day. The black spots had extended so as to include the entire lumbar region on both sides. But little pain. Retention of urine continued. Carbolic acid ointment (very weak) was spread upon a cloth and applied to the back, to prevent his clothes from sticking.

11th day. A space ten by twelve inches was denuded of cuticle; a slough about four by five inches was forming in the true skin on the right side; pulse 145; extremities cold; cold, clammy sweat. Diarrhœa set in during the night. Died at 2 o'clock P. M.

This patient was somewhat worn down by hard work and dyspepsia. His case, from the start, was marked by very slight delirium up to the day he died, when it became a decided feature. Both the cases were singular, in the fact that but little pain was complained of.

At the present writing, from notes made at the time, Case 1 has fully recovered, and, before closing the paper will add another case, which is yet under observation.

CASE 3.—S. S., farmer, age about 65, consults me in regard to his thumb, which has been swollen some two or three weeks, and supposing it to be of the nature of a

felon, has been poulticing it, and a day or two previous has had it partly opened.

Being very busy, I kept no notes of the case, nor record of visits, although these, for the greater part of three weeks, were made twice and three times a day.

Upon my first visit, the appearances were so much those of a phlegmonous inflammation I carried a scalpel down to the first phalanx of the thumb, making an incision half or three-quarters of an inch in length. Only a little unhealthy pus was evacuated, and this apparently from just beneath the true skin. This incision, during the next three or four days, was carried through the true skin, across to and down the index finger to the junction of the second and third phalanx. The inflammation extended to the second and third fingers, the palm of the hand, and up the arm. The patient being feeble, he took constantly iron and quinine, and had advised for him egg-nog, but took none of this till the second week of my attendance. Incisions were made in various parts of the hand and fingers, being carried down to the bone in places, but the entire suppurative action seemed to be located in the subcutaneous connective tissue and skin. During the first week, gangrene set in, in the end of the thumb and index finger. Solutions of carbolic acid, bromine and permanganate of potash, were constantly used. To the washing out of the deeper diseased parts I attended myself. The connective tissue in the arm supplicated to within three or four inches of the elbow, mainly upon the palmar surface of the arm. Lengthy incisions gave exit to no more pus than shorter ones, through the local pockets. For the last few weeks of the suppurative action, only short incisions were practiced. During the second or third week, the entire fore-finger seemed to be gangrenous, as well as the end of the thumb. Intense pain required the constant use of morphine. About the fourth week the inflammation began to subside in the arm, and finally subsided, to some extent, in the hand and fingers. The sixth week I amputated

the fore-finger through the second phalanx, since which time there has been a steady but very slow subsidence of the inflammation. Some of the gangrenous spots have not yet healed, and are still having applied to them the solution of bromine, but the patient is convalescing, and will shortly be well.

DEATH FOLLOWING THE ADMINISTRATION OF ETHER, AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY.

BY E. L. HOLMES, M.D.,

PROFESSOR OF DISEASES OF THE EYE AND EAR, RUSH MEDICAL COLLEGE.

(Read before the Chicago Medical Society, April 3, 1876.)

Mr. M., in the 74th year of his age, came under my care for the extraction of cataract. Unfortunately, there was chronic conjunctivitis in each eye, which foreshadowed a protracted treatment. The patient was exceedingly obese, especially in the abdominal region—had a remarkably large and finely developed head, with a short and very thick neck. The upper and lower limbs were peculiarly deficient in development, apparently from early childhood, for they were relatively small and extremely short; the hands and feet were also uncommonly small. While the body was very nearly normal in length, the limbs were so short that the whole height of the patient was but four feet three inches. His weight was 184 pounds.

The general health had always been quite good, enabling the patient to perform his duties in an important State office, which he had held nearly forty years, till he became blind. The patient had become slightly asthmatic, and was troubled with some cough. Although faint rales in the chest could be heard, the action of the heart and lungs presented no symptom indicative of failing health. I doubt whether the pulse could be called weak. The appetite, digestion and excretory functions were quite normal. There was, however, a ten-

dency to undue perspiration in exercising, or when the temperature of his room was a little elevated.

In the latter part of December, the eyes were in so favorable a condition that I considered it safe to perform a preliminary iridectomy. The patient took no food after breakfast. Squibb's stronger ether, turned upon a large porous towel, folded several times and covered with paper, was given to the patient, while lying on his back with the head slightly elevated. The patient breathed very quietly, till he seemed to be unconscious, when coughing commenced. This was no more violent than is often observed when this anæsthetic is administered. Scarcely any mucus or saliva collected in the throat. Soon after this, the breathing ceased, and the face became remarkably livid, while the pulse continued regular and strong. Pressure on the chest aroused the respiration, when more ether was given and the operation on each eye completed without further unpleasant symptoms. There was no vomiting.

The wounds in the corneal border healed readily, although from a repeated recurrence of slight conjunctivitis I did not consider the eyes to be in a condition fit for the extraction of cataract for about three months.

Meanwhile the general health had continued as good in every respect as it had been. Dr. I. N. Danforth had given the patient simple remedies to relieve a trifling cough and asthma, and to overcome the undue perspiration. The asthma never prevented sleep in the recumbent position. At half past three, on the 27th of March, Squibb's ether was again administered under precisely the same circumstances as at the previous operation. I must confess that nothing in the patient's condition excited the least suspicion, either in Dr. Danforth or myself, that a fatal result could follow. The thought never entered my mind, although I had some solicitude regarding the success of an extraction of cataract in an eye which might be considered predisposed to inflammation. The patient was in a cheerful state of mind, and inhaled the ether quietly till about half a pound had been consumed,

when quite violent coughing commenced. This was soon followed by an extremely livid appearance of the face and then by a cessation of breathing. I placed my finger on the pulse, found it failing in strength and directed my assistant to remove the towel, and others in the room to raise the foot of the bed as high as possible. Meantime I raised the tongue, and with the other hand made very forcible pressure every few seconds on the side of the chest.

Respiration was at once re-established, as also full action of the heart, when I directed the foot of the bed to be let down. The lividity in a great measure disappeared. Even at this moment I did not think of danger, but, without giving more ether, rapidly commenced and completed the section, and, as the iridectomy had already been performed, as rapidly removed the lens. This passed through the wound at once with only the least possible manipulation. The bandage was speedily adjusted. I cannot think two minutes elapsed from the commencement of the section to the final adjustment of the bandage. I made the steps as rapidly as was consistent with care, being not quite certain that the patient had taken ether enough to keep him unconscious sufficiently long for the possible delay in "delivering" the lens, which occasionally happens. My usual method of applying the compressive bandage reduces the time to a minimum, since I place an elastic band around the forehead ready in any emergency to be slipped over the eyes. I am confident, therefore, that all this required less than two minutes, when I observed that the patient did not breathe, that the face was more livid and the pulse very weak.

The same course was pursued as before the operation as regards drawing up the tongue, raising the foot of the bed and inducing artificial respiration, and, in addition, by forcing air into the lungs (?) by the breath. At the end of a minute or more, I could feel no pulse nor hear the heart; the face had become exceedingly livid.

The efforts I have described, except raising the foot of the bed and forcing the breath into the mouth were continued an hour and a quarter.

There were present my assistant, the matron, the resident pupil, and one of the nurses. Galvanism was not employed. No autopsy was obtained.

In neither case was the towel held so close to the face as to prevent the entrance of sufficient air into the lungs.

It is perhaps due to myself to state, that for nearly fourteen months in 1853-4, I was resident assistant in the Massachusetts General Hospital, at Boston, and administered anæsthetics, under the supervision of the surgeons, in a large number of cases. Subsequently I witnessed the administration of chloroform very frequently, in European hospitals. For about eleven years ending 1867, I used chloroform almost exclusively in hospital and private practice. In several instances in my practice the use of chloroform was followed by the most alarming symptoms; the action of the heart and lungs absolutely ceased, as far as could be observed by auscultation of the chest. In every instance there was sudden and apparently complete syncope. Fortunately no fatal result occurred.

After observing two or three of these cases and witnessing numerous instances in which danger seemed imminent, I made the experiment of placing the patient with head down on an inclined plane of at least 45°. I found without exception, in extreme cases and in cases where there was slight enfeeblement of the pulse with pallor of the face, that this change of position caused immediate fullness of the pulse and flushing of the cheeks. I was led to this step by the appearance of the patients, and by the recollection of seeing one of my early medical instructors seize a child, apparently dead from shock and loss of blood, by the feet and hold it a moment head downward. This brought to my mind the injunction of another teacher (in obstetrics), to raise the foot of the bed as high as possible in cases of dangerous hæmorrhage.

I experimented very many times, and soon resolved never to administer chloroform unless the patient was placed on a suitable board, so the position could be easily changed with the least delay.

Although I have long since abandoned the use of chloroform, I am fully convinced that this treatment—by increasing the hydrostatic pressure of the blood at the nervous centres—reduces the dangers from chloroform to a minimum, and at this minimum, chloroform can scarcely be considered as an especially dangerous anæsthetic. I apprehend, physicians in resorting to this method, too often fail to apply it *promptly*, and in such a manner that the whole body is on a very steep inclined plane. These points are of primary consequence as compared to elevating the tongue.

A notice of these observations was published in the transactions of the Illinois State Medical Society for the year 1868. This was copied in a large number of medical journals—as far as I know—without comment regarding originality. It was only till somewhat recently that I learned from Dr. J. Marion Sims in person, and from his published address, that the method had been employed years before by Nèlaton.

Ether, as well as chloroform, sometimes causes dangerous cessation of breathing. I believe this, with the secondary effect, lividity, is due to the action of the anæsthetic on the nervous centres of respiration. I had observed during my first experiments that patients in this state placed in the position above described invariably and speedily began to breathe. The elevated column of blood seemed to excite the nerve-centres.

I may add, that I have seen two cases in which the administration of ether was followed, as the patients regained consciousness, by most violent and protracted neuralgia of the left arm.

TAPPING OVARIAN TUMORS.

BY M. B. WRIGHT, M.D.,

LATE PROFESSOR OF OBSTETRICS IN OHIO MEDICAL COLLEGE.

I have derived pleasure and profit from a perusal of Dr. Byford's paper on ovarian cysts. It gives a comprehensive view of the entire subject, and presents very clearly individual sentiments, respecting the utility of operations and their kind. What shall be done with the more solid tumors is a question admitting direct replies. Remove them bodily, or let them alone. The treatment of these tumors by medicines, such as act on the kidneys, intestines and skin, or by counter-irritants, is of doubtful efficacy. My own belief is, that their long continuance impairs the general system, and tends to increase rather than retard the growth of the tumor. A well devised tonic treatment, with the introduction of a cotton ball saturated with tinct. iodine, and the fluid ext. ergot, and glycerine, one part of the former to two parts each of the latter, have given much satisfaction before the tumors had attained any considerable size. But my object at this time is rather to present a case of single cyst, cured seemingly by tapping alone.

S. P., aged 17, single, entered the Cincinnati Hospital Aug. 12, 1874. Family history good; parents, substantial Germans.

Two years ago, she observed a degree of tumefaction in the lower and pubic portion of the abdomen. For a time it was attributed to flatulency, and for this treated. The abdomen increased gradually in size, and without much inconvenience until May, 1874, when, from oppressed breathing, it was deemed best to resort to tapping. A large quantity of fluid was drawn off (quantity not given) to the great relief of the patient. No pain was experienced during the accumulation of fluid. Now and then, however, subsequent to tapping, lancinating pains were felt in the abdomen, and the catamenial function was suspended during two periods.

When the patient entered the hospital, three months after the tapping, the enlarged abdomen measured thirty-five inches. She also complained of pain in the left ovarian region.

August 31. Breathing is somewhat oppressed ; measurement, $38\frac{1}{4}$ inches ; fluctuation is distinct ; there is dullness on percussion, except in the lumbar regions, where there is distinct resonance. The swelling has a little more prominence in the left than right iliac region. There is an unusual firmness in the left cul de sac of the vagina.

The diagnosis is a unilocular ovarian cyst.

The patient had been advised to enter the hospital, and submit to an operation. The summer heat was unfavorable for an operation as hazardous as that of ovariectomy. Tapping presented three points for favorable consideration : the comfort of the patient, a more accurate diagnosis as to the solid elements of the swelling, and the most judicious treatment. In view of the general condition of the patient, as well as the diagnosis, I felt strongly urged to test the efficacy of tapping, as a prominent means of cure. Accordingly, I drew from the cyst, by means of a bistoury and gum-elastic tube, inserted in the linea alba, twenty-six pints of a dense ropy fluid. Before the complete emptying of the cyst, the patient became slightly faint, from which she soon rallied by slight stimulation. A compress and bandage were applied, and the patient ordered to bed. In two or three days she was walking about, and on October 26 she left the hospital.

She was re-admitted April 5, 1875, with a prominent abdomen, although not as large as at the last tapping. Her bowels were inactive, and the kidneys were not secreting well. Her appetite was impaired, and her strength had failed. Under the influence of purgatives, diuretics and tonics, a better state of health was established.

May 28, she was again tapped, with sensible relief.

June 28, she left the hospital, since which time she has increased in flesh and strength, and up to this time, Feb. 10, 1876, there has been no perceptible accumulation of fluid.

This case afforded just ground for discussion. On the one hand it was claimed, that, ultimately, a more radical operation would be demanded, and that while the patient remained in general good health, success might be reasonably anticipated. On the other hand there was before me a young woman of fine physical development, and who was suffering in no way except from her bulk. There was no evidence of a solid tumor. She could be relieved by a simple operation, and this could be performed from time to time without danger. The re-accumulation of fluid was at long intervals. The hope of final success seemed justified. And the question, how long will the patient live? was not pertinent nor pressing. Again, I am in favor of a partial or complete evacuation of the cyst before an attempt is made for its removal by incision.

The following case presents some points of interest as taken from the hospital record:

E. L., widow, aged 42. Has been pregnant seven times, the last six pregnancies terminating prematurely. Attributes her miscarriages to hard work—washing, ironing, etc. Has not been pregnant for fifteen years.

About four years ago, she observed a swelling near and below the umbilicus, which has been gradually increasing. There is difficult breathing in any position, but she cannot sleep in the recumbent posture. The abdomen is of immense size and irregular upon the surface. The diagnosis is, a more or less solid tumor, with many cysts of varying dimensions. Fluctuation, here and there, was observed in the larger cysts near the surface. One was punctured below the umbilicus, and two between the umbilicus and superior spinous process of the ilium, on the right side. The aggregate amount of

fluid drawn, measured two hundred ounces. The fluid in the three sacs differed both in color and consistence.

The next day, June 21, the report was that she had slept soundly in any position, and that she was comparatively at ease.

June 23. The patient is walking about the ward, cheerful and free from pain.

About the first of August she was regularly transferred to the care of my associate and successor, Dr. Tate. Notwithstanding the patient suffered the inconvenience of bulk only, she expressed a strong desire for the removal of the tumor. Accordingly, on a cool day in November, Dr. Tate performed ovariectomy. Extensive and strong adhesions were found, complicating the case, and rendering it almost necessarily fatal.

The operation, deliberately and skillfully performed, was followed by death on the third day. The tumor weighed about twenty-five pounds.

Every operation for the removal of ovarian tumors, whatever may be their character, is attended with hazard. I have witnessed an expert extraction of a single cyst, without adhesions, with a fair state of general health, and with favorable surroundings, which terminated fatally, contrary to all reasonable expectation.

Again, the operator has taken up his knife with fear and trembling, feeling that death was in every incision, and yet the result has been favorable. Hence, the diagnosis of a case and the effects of an operation are vastly different.

Those who are opposed to tapping, carry their prejudices so far as to declare that it renders a radical operation uncertain, if not positively fatal. There has been nothing within my limited experience that justifies any such assumption. I have tapped and seen tapped many cases of single and multiple cysts, with decided benefit, and without injury in a single case. Does inflammation result from tapping, and thus add gravity to the disease and the operation? It is scarcely possible. The punc-

tures, for illustration, in the case above, had nothing to do with the inflammation and adhesions already described. They were free from even a blush of inflammation. It is urged that the sacs refill, and often rapidly. Suppose they do, they are no more unpromising than the original cysts, and if need be, tap again.

Those who have operated most frequently, and are most distinguished for success, not only desire quietude, pure air, and a "preparation" favorable to the healthy performance of the functions, but a bracing temperature as auxiliary to success. Summer heat is prejudicial to all grave operations. Now, suppose a tumor, partly if not wholly cystic, should create discomfort almost beyond endurance, and the season should be unfavorable for an operation, would it not be better to lessen the volume of the tumor by tapping, than to attempt a radical cure? Palliation, if possible, is demanded in every case, curable or incurable.

CINCINNATI, Jan. 25, 1876.

THE CHICAGO SOCIETY OF PHYSICIANS AND SURGEONS AND THE GOVERNMENT REPORT ON CHOLERA.*

By I. N. DANFORTH, M.D., and J. N. HYDE, M.D., OF CHICAGO.

We desire to call the attention of the medical profession to the volume entitled, "The Cholera Epidemic of 1875 in the United States," which was recently issued from the Government Press. It was prepared in accordance with an Act of Congress, passed on the 25th of March, 1874, and is, in fact, a compilation of Reports from the Secretaries of the Treasury and the War Departments, transmitted to the Senate and House of Representatives by the President of the United States in a message bearing date January 13, 1875.

* Published in accordance with the resolution of the Society.

We do not propose to review this work, as that labor has been carefully and conscientiously performed by numerous critics connected with the medical press of our country. We desire merely to comment upon the following statement to be found on the 37th page of the work :

“Through the kindness of Dr. Ben. C. Miller, Sanitary Superintendent of Chicago, we are able to present the results of a series of microscopic examinations which were made at his request by Dr. I. N. Danforth, of Chicago, the autopsies from which the specimens examined were obtained having been made by Dr. Marshall W. Wood, now of the U. S. Army. These reports are possessed of an additional interest from the fact that they are as yet the only published American investigations conducted in the epidemic of 1873.”

During the summer of the year named, an epidemic visited a limited district of the city of Chicago lying just beyond its southern limits. It was soon after announced in an open meeting of the Chicago Society of Physicians and Surgeons, that cholera had made its appearance in the neighborhood of 37th and Burnside (now South Dearborn) streets. A resolution was promptly passed, requesting all members practicing in that locality, to report their experience in full. The response was equally prompt and full of interest. Minute details were given, respecting the origin and extension of the disease, together with the history of several typical cases. Dr. W. M. Boyd at one meeting exhibited a map indicating not only the houses and streets of the infected locality, but also showing the line traced by the advance of the epidemic. These reports awakened great interest among the members of the Society, who attended all its meetings in large numbers. One special meeting was called and held for the sole purpose of discussing the questions relative to the epidemic malady. The need of complete investigation and elaborate reports, was appreciated by all. On the 18th day of August, 1873, two committees were,

by unanimous resolution, appointed for this purpose. They were constituted as follows: "On the History, Nature and Contagiousness of the Disorder, Dr. Thomas Bevan, chairman, Drs. John Bartlett, C. J. Simons, I. N. Danforth and Lester Curtis. On Prophylaxis and Treatment, Dr. J. H. Etheridge, chairman, Drs. H. P. Merriman, W. M. Boyd and F. H. Davis."*

Dr. Hyde was then secretary of the Society, and was naturally interested in forwarding, as far as possible, the work which had thus been inaugurated. On the evening of Aug. 27, a hasty and imperfect post-mortem examination had been made by a medical student, of the body of a patient, dead of cholera in the district of the city to which reference has been made. From this young and inexperienced student, Dr. M. W. Wood secured four specimens, removed from the body, and the merest scrap of information relative to the ante-mortem history of the case. These few facts and specimens were brought to Dr. Hyde as secretary of the Society, and by him transmitted to Dr. I. N. Danforth, who, according to previous arrangement, had been charged with the report on the pathology of the disease. Dr. Danforth erroneously concluded that Dr. Wood had conducted the autopsy referred to, and felt, very properly, that the city of Chicago should not permit its public institutions to be administered in so lax a manner. As the patient had died in a Cholera Hospital, he naturally supposed that the examination and report had been made by an officer of that hospital. In his report, therefore, Dr. Danforth characterized the clinical history of this case as "provokingly meagre and deficient, especially when it is taken into consideration, that the patient died in a public hospital, subject to the disciplinary regulations thereof."

We refer to these facts in order to save our friend, Dr. M. W. Wood, from the imputation of having made this defective and slovenly post-mortem examination, as it

* This is a transcript from the Records of the Chicago Society of Physicians and Surgeons.

would appear from the Government Report. Dr. M. W. Wood is known to us as a careful and conscientious surgeon, who is to-day an ornament to the medical staff of the army as he is to the membership of the medical organization that had undertaken the investigations in question.

Conscious of the need of further material, and aware of the meagre character of the results afforded by this first examination, Dr. Hyde offered to conduct a second necroscopy, should opportunity for such be offered. Accordingly, at 10 A. M., of Sept. 9, 1873, Dr. Hyde, at the request and in the presence of special sanitary inspector Dr. Chas. J. Simons and Dr. M. W. Wood, made a section of the body of Joseph Schere in the Cholera Hospital. At this time every viscus of the cranial, thoracic and abdominal cavities was carefully inspected and dissected, and a specimen of each forwarded to Dr. Danforth with eleven cholera stools, separately bottled and consecutively numbered, together with notes of the gross appearances of the organs and as much of an ante-mortem history as could be obtained, not only at the hospital but at the other places visited by the patient before death.

It is made to appear in the Government Report that Dr. Hyde merely served as a clinical clerk on this occasion, though the record of the autopsy is given in his language. Neither Dr. Wood nor Dr. Simons ever claimed to have made this autopsy. The labor incidental to its performance occupied the entire forenoon, and Dr. Hyde was for two days afterward prostrated by cholera-like discharges, which speedily yielded to proper treatment.

The question considered above, however, is of much less importance than that which follows, viz.: "*Can the Board of Health of Chicago justly claim that these examinations were conducted under their direction, and thus appropriate the results to which they led?*" This

is the question which has led us to present the facts in the case to the notice of the profession.

The following extracts copied from newspaper clippings of daily journals of Chicago, published during the prevalence of the epidemic, may serve to indicate the part taken by the Board of Health at that time.

The first—a secular report of an open meeting of the Society of Physicians and Surgeons—reads as follows: “Dr. Bartlett thought the disease was *Cholera Asiatica* and nothing else. He wanted to know what the Board of Health were doing and what they were paid for, if they permitted such a state of affairs as that spoken of by Drs. Boyd and Jackson. The condition of many parts of the city was outrageous.”

The “state of affairs” to which Dr. Bartlett had referred, was that which had been graphically described by medical men practicing in the infected locality, they having testified before the Society, that, in some instances, cholera dejections, neither deodorized nor disinfected, had been thrown out upon the streets, and there suffered to remain, the fruitful parents of a progeny of disease-germs. At another time, it had been stated that feather beds, upon which patients of German nationality had evacuated the contents of their bowels and subsequently died, had been, without any interference, transported from one locality to another on the removal of the survivors of the family from the infected to a more salubrious district.

Whether the Board of Health were finally aroused by the appearance of these startling statements in the public press of the city, we do not presume to decide. But it was no secret, at the time, that the Board desired medical men to report patients who were the victims of the epidemic disease, as dead of *cholera morbus*. It is somewhat doubtful whether they believed cholera to have actually affected the city. Here is a second extract, illustrative of this point:

“Dr. A. R. Jackson said it was an important point to

determine whether these cases should be acknowledged as cholera, or whether, *as demanded by the Board of Health*, they should continue to call it cholera morbus."

These words were taken down by a reporter of the daily press then present.

On the appearance of these details in the public journals, one daily newspaper, which chanced not to be represented at this particular meeting, soon after published an article headed "No Asiatic Scourge!!" From it the following extract is appended :

"The sanitary superintendent w first sought, but found to be housed on account of a slight indisposition. His secretary who keeps the records and compiles the statistics of the Board of Health, said that no cholera cases had been reported from any part of the city, and that there had been no deaths from the disease."

Subjoined was a tabulated statement, evidently taken from the records of the Board, going to show that the health of the city was unprecedentedly good, and that the rate of mortality was even less than during the same season of the preceding year. If the figures did not lie, Chicago decidedly was innocent of cholera.

Very different was the sentiment entertained by a large portion of the members of the Society of Physicians and Surgeons, some of whom were practicing in the infected locality, and many of whom visited it for the purpose of confirming the facts here reported. The view, however, held by Dr. Wood at this time was essentially different from that of the others, and is well set forth in his able and interesting letter published in the Government Report.

After the epidemic had completely subsided, the sanitary superintendent, presumably for the first time, learned of the investigations pursued by the Society. He then communicated with Dr. Hyde, requesting to be allowed the use of the papers prepared on the subject for a report which he was about to make to the National Health Association in New York.

His request was cheerfully complied with. Dr. Hyde at once called upon Dr. Danforth, and, as the secretary of the Society, requested the latter to furnish the required material. Subsequently the statement was made to Dr. Danforth, by one high in authority, that the Board of Health were parties to the investigation and thus entitled to make use of its results. Dr. Danforth, thus assured, permitted his manuscript to go out of his hands.

We presume that it was incorporated into the report made by the sanitary superintendent to the Health Association in New York ; and hope that in the latter, credit was given where credit was due.

In his report, however, to the Board of Health of the city of Chicago, dated March 31, 1874, and published in book form during the same year, these reports are incorporated in full, and prefaced with the following statement :

“A microscopic examination of Cases II and III was made by Dr. Danforth *at my request*, who has kindly furnished notes and drawings of the examination.”

On the evening of February 9, 1874, Dr. Danforth in due form presented to the Chicago Society of Physicians and Surgeons his written report of the sub-committee on the pathology of the epidemic as it had occurred here. His paper was, at his request, read by Dr. Bridge, and he in the meantime, exhibited his microscopical sections of the intestinal membrane, etc., illuminated by the oxy-hydrogen light and explained their various appearances as they passed beneath the objectives. The meeting was very largely attended not only by members of the Society, but also by invited guests who had assembled in consequence of the unusual interest of the proceedings. After the reading and exhibition of the specimens were concluded, the report was duly accepted, and Dr. Danforth received, by resolution, the unanimous thanks of the Society.

The introductory pages of this report are subjoined,

not only as showing the circumstances under which it was prepared, but also as determining what was suppressed or elided from the manuscript which had been previously loaned to the officials of the Board of Health and by them published in a fragmentary manner.

“REPORT ON THE PATHOLOGICAL ANATOMY AND HISTOLOGY OF CHOLERA.

By *I. N. Danforth, M.D.*, Lecturer on Pathology in Rush Medical College. Read before the Chicago Society of Physicians and Surgeons, Feb. 9, 1874.

Early in the summer of 1873, epidemic cholera made its appearance in the city of New Orleans, and, in spite of vigorous sanitary measures, it rapidly spread in all directions. It swept northward through the Mississippi valley, capturing and conquering city after city, and hamlet after hamlet, in defiance of the fact that civic authorities had entrenched themselves behind the most approved measures of prophylaxis, and in direct violation of its own time-honored law of migration. In the month of August it reached Chicago, and became “endemic” in the so-called Bridgeport district. Probably in no part of Chicago are the sanitary conditions so desperately bad as in the section above mentioned. As the duty of reporting at length thereupon has been assigned to another member of the committee, I may dismiss the subject by remarking that the habitual drinking of surface water for want of hydrant water, the enforced dependence upon surface drainage in default of underground sewerage, and the total absence of pavements upon the streets, form the main elements of a problem so easy of solution that it is scarcely a problem at all.

On the 18th of August, 1873, the “Chicago Society of Physicians and Surgeons” appointed a committee, whereof Dr. Thomas Bevan was chairman, to investigate the “history and nature of the disease now prevailing in the south-west district of the city, with especial reference to the question of contagion.” The committee consisted of Drs. Bevan, Bartlett, Danforth, Simons and Curtis; a

division of labor was subsequently made, and to the writer was assigned the intrinsic pathology and microscopy of the disease in question. The infected districts was so far from my own residence that it was impossible for me to visit it for the purpose of making autopsies. I was therefore reduced to the necessity of taking what morbid specimens I could get, and make my report thereupon. Through the kindness of Dr. James Nevins Hyde, I have been furnished with the histories of two cases, with specimens of evacuations (both ante- and post-mortem), and several specimens of intestine and other organs. In the following report, I have entered upon no speculations, but have endeavored to faithfully and somewhat minutely record the gross and microscopic appearances, with the hope of adding somewhat to our knowledge, particularly in the domain of pathological histology."

With reference to Case II, it is said :

"Dr. Hyde * * * furnished me the clinical history so far as he could obtain it, and very complete notes of a very complete and workmanlike post-mortem examination made by himself. I cannot do better than insert Dr. Hyde's account of the case at length, which is as follows: "

When Dr. Ely McClellan of the U. S. Army visited Chicago during the period in which he was engaged in the compilation of his part of the "Report on Cholera," issued by the Government, he was a guest of the sanitary superintendent. At the request of the requisite number of the members of the Chicago Society of Physicians and Surgeons, Dr. Hyde, who was then also the secretary of the Society, called the special meeting at which Dr. McClellan presented his highly interesting sketch of the progress of the disease throughout the State of Kentucky. This meeting was also largely attended, and the speaker took occasion to pay a deserved compliment to the Society by stating that he had collected no reports

which equaled, in interest and value, those obtained from the investigations conducted under its auspices.

Our purpose is now evident. It is to call the attention of the profession to the fact that the part taken by the Society of Physicians and Surgeons is coolly and completely ignored in a volume of 1025 pages published under the auspices of the Government and in accordance with a joint resolution of both Houses of Congress. Or, rather, not being ignored, the valuable portion of its report is as coolly and completely appropriated and credited to the direction of the Chicago Board of Health.

If any deem that this subject is too trifling to require the detailed explanation and correction we have here endeavored to make, we beg leave to recall to such the comment of the "Report" itself, as published by the Government, upon the researches in question, which are pronounced to be "*possessed of an additional interest from the fact that they are as yet the only published American investigations conducted in the Epidemic of 1873.*"

We desire to be understood as charging no one with a breach of good faith, common honesty or professional honor. We desire, in fact, to make no charges whatever. We simply claim to set forth the facts in the case which are briefly these: 1st, That the Board of Health of Chicago had not in any way the slightest connection with the work of inaugurating or prosecuting these researches; and, 2nd, That the latter were undertaken under, and solely under, the auspices and direction of the Chicago Society of Physicians and Surgeons by the instrumentality of its duly appointed committees. To it, therefore, and to no other body, belongs the honor, if any there be, of the work accomplished. Had not these committees been appointed, it may well be doubted whether the investigations would have ever been set on foot; certainly the work performed respectively by the authors of this statement was not undertaken as private individuals, but as members of the Society. The specimens examined

were furnished to Dr. Danforth with that specific understanding, and were examined and reported upon accordingly.

One other correction remains to be made. The formula for the prophylaxis of cholera which was successfully used in the infected district and which is published in the Government Report, was furnished by Dr. Thomas Bevan, and formed part of the report of the committee on Prophylaxis and Treatment, which was also made in due form to the Society of Physicians and Surgeons.

We have thus presented the statement given above, in a desire to do impartial justice to all concerned, and to make a correct historical record of the facts in the case.

Editorial.

It will hardly be necessary to introduce the subject matter of the following letters with anything more than a statement of the facts connected with the manner of our possession of them.

Early in March, 1876, the janitor of the Chicago Medical College received a note from the Dean of the Kentucky School of Medicine, requesting him to send the names of a number of the students of the former institution to him.

The janitor complied, and being of an inquiring turn of mind wrote and mailed the following letter to the Dean of the Kentucky School of Medicine. We mark it

(No. 1.)

CHICAGO, March 5, 1876.

Dear Sir—I have attended one year in the Chicago Medical College, and according to the rules of this institution I shall have to spend two more years before I can graduate. Now I want to get through in shorter time in your college; will you then oblige me by stating so, and send me your annual announcement.

Respectfully yours,

P. NILSON, 785 Wabash Ave.

To this a letter, of which the following is an exact copy, came as an answer :

(No. 2.)

LOUISVILLE, March 9, 1876.

MR. P. NILSON : *Dear Sir*—I am just in receipt of your letter of the 5th inst. As you have attended one course of lectures, you would be allowed to come forward for graduation in this school after attending one more course. You can come on here now and join the present class and come forward in June of this year for graduation. I send you a catalogue.

Yours very truly,

E. S. GAILLARD.

Letters Nos. 3 and 4 were handed to us by Prof. Nelson of the Chicago Medical College, who vouches for their genuineness.

(No. 3.)

CHICAGO, March 21, 1876.

To the Dean of the Louisville Medical College, Louisville, Ky.:

Sir—I am desirous of attending college this summer. I address you in relation thereto.

I am a man of 25 years ; my early education I obtained in Indiana and my classics in Rockford, Illinois. I began the study of medicine in December, 1874. I have attended a course of summer lectures of three months, and a winter course of six months, both courses being taken in Chicago Medical College.

I have creditably passed the Junior examinations and completed three dissections of the human body.

Now will you admit me as a student of your college and at the same time allow me to come up as a candidate for graduation, and graduate at the end of this present session; providing I pass the required examinations and furnish certificate of moral character.

As I have been detained for examination in the Chicago Medical College which closes this 21st inst., your immediate answer will oblige

Yours truly,

M. M. ROWLEY.

P. S. Please send me catalogue to 45 South Clark Street, Chicago.

Letter No. 4 came in answer to the above.

LOUISVILLE, Ky., March 24, 1876.

MR. M. M. ROWLEY :

Dear Sir—Your letter of the 21st inst. has just been received. You can enter the present session of this college and come forward for graduation with the class in June; I would advise you, however, to come on with the least possible delay, as the course was begun on the first of this month. I send you a catalogue by this mail.

Yours very truly,

E. S. GAILLARD.

Commentary upon the above letters is entirely unnecessary. They are plain and to the point.

Correspondence.

IRVING, N. Y., March 6, 1876.

To Wm. H. Byford, M.D. :

SIR—The case of Milton Brooks which I present you for publication is one which has awakened great interest among the medical men of Chautauqua county, and I doubt not will interest the readers of your Journal in the western part of our country. Perhaps Dr. Rogers will report it in an Eastern journal, but I think he has not obtained a full and perfect history of the case.

A very remarkable case of what has been called extreme costiveness by the physicians who have attended him at various times during a long period of sickness and suffering, has recently come under my observation. Believing it to be a case which will be of deep interest to the medical profession, I propose to give a brief history of it for publication in your Journal.

Milton Brooks, now deceased, had been the subject of a distressing complaint from the age of two years up to his death, which took place at the age of about 26 years. I have obtained the following statement from his parents. While an infant, nearly two years of age, he suffered from diarrhoea which became chronic and defied medical treatment for several months, but yielded at last, and was immediately followed by constipation, which condition of the bowels continued up to his death, but varied in their time of movement, the evacuations varying in time from two weeks, or about that, up to eight months and sixteen days. It was quite common for three, four and five months to intervene between evacuations.

During this great length of time this condition of his bowels continued without much mitigation, if any, from medical treatment, and that was often resorted to. He was treated by several physicians during his illness. Dr. Harrison, of this county, treated him mostly while

in youth. Subsequently, Dr. Strong, of Westfield, Dr. Rogers, of Dunkirk, Dr. Bishop, of Silver Creek, and during the last three months of his life, I attended him. While he was under my care, I obtained from him a more minute description of his symptoms from the time he was old enough to understand and remember particulars about his sickness and suffering. I learned from him, as well as from his parents, that he suffered extremely every time he had evacuations of feces, often several hours, notwithstanding the evacuations were thin.

Generally, after his evacuations, pain gradually passed off and he would feel quite comfortable, eat quite hearty and do some light work, until he was again distended from the accumulation of feces in the colon. The accumulation being gradual, his body seemed to accommodate itself to the condition, but he was obliged to eat less as the distention increased, but at last the pressure on the stomach appeared to interfere with the functions of digestion, then his food would enter into fermentation, gas would generate rapidly, severe distress would commence, eructation would follow, and sometimes vomiting. The instincts of nature would be awakened and he would press and knead his bowels. In this way he would procure evacuations, and I concluded from his own account and my own observations during my attendance of him, that he never had a natural evacuation by the unaided efforts of nature, but always from gas, pressure and kneading of the bowels. The evacuations were enormous when the intervals without a passage were extended several months.

After the time that he went eight and a half months, he was weighed before the evacuation, and a few days after, and his weight was forty pounds less. This, to strangers to the case, would appear incredible, but we who know the character of the young man and that of the parents do not doubt the statement. Notwithstanding this abnormal condition through his whole life from infancy, his system was well nourished, and developed into an

average-sized man. The only time he was comfortable was from the time of evacuations until the pressure from accumulation upon his stomach, his lungs and his heart took place; then he suffered continually until he had evacuations. After his growth was completed he became quite fleshy; quite a large accumulation of adipose had taken place about the intestines and under the skin. The great pressure from the accumulations produced considerable deformity of his body or disproportion, as the measurements at different times have shown.

He was never able to do any hard work. He could not run, or get around in a hurried manner like young men in general. He was always moderate in his movements. He was pale and exsanguine. His intellectual faculties were well developed, and I should judge he had a fair common school education.

This case being decidedly a remarkable one it attracted the attention of several medical men of this county who had the privilege of investigating it. He has several times been brought before the medical society of this county at the annual meeting, for examination. Dr. Rogers, of Dunkirk, in this county, reported the case to the members of the faculty at the annual meeting of the American Medical Association or a State Association, (I am not positive which), I think nearly four years since, as it then existed.

Dr. Strong, of Westfield, reported the case in the *Philadelphia Medical Journal* in October, 1874, as he found it at that time. His report is as follows:

“Milton Brooks, residing in Sheridan, Chautauqua Co., New York; age, 24; height, 5 feet, 10 inches; unloaded weight, 125 pounds; skin pale, and has a waxy look, tongue clean and pale; has been habitually constipated from childhood. The first medical history of him which I have obtained is by Dr. Geo. S. Harrison, of Sinclairville, who attended Brooks when two years old for costiveness. His habit then was to go about two weeks without fecal evacuations.

Several years later he attended him for diphtheria, and the time was then extended to six weeks. Dr. H. has occasionally seen him and watched the case up to this time, and says the disease has been gradually increasing. For the last six years he has been under my observation and has several times been before our medical association where careful measurements and examinations have been made. Most of the medical men of this county know more or less of the case. In May, 1872, I took the following measurements of him naked :

One girth above the nipple, $34\frac{1}{2}$ inches ; one girth at umbilicus, 36 inches ; one girth 2 in. above umbilicus, 37 inches ; one girth 3 in. above umbilicus, 39 inches ; one girth 4 in. above umbilicus, $39\frac{1}{2}$ inches ; one girth 6 in. above umbilicus, 39 inches ; one girth at lower end of sternum, 38 inches. Apex beat of heart one inch above nipple and one and a half inside.

March, 1874, I took the following notes :

Four weeks after he had a partial evacuation, and four months before he had a complete one. Girth at umbilicus, $37\frac{1}{2}$ inches ; girth at 4 in. above umbilicus, $38\frac{1}{2}$ inches ; girth at 6 in. above umbilicus, $38\frac{1}{2}$ inches ; girth at epigastrium, 38 inches ; girth at nipple, $36\frac{1}{2}$ inches.

Dr. Bishop, of Silver Creek, who is now B.'s adviser, wrote me, May 7, 1874: His bowels have moved a little several times since you saw him at my house, March 14. Once or twice a year he has had an attack of vomiting attended with violent pain in the stomach and bowels, since I have been his medical adviser.

In 1872 he had such an attack which was controlled by hypodermic injections of morphine, and again in 1873 the same occurred and bowels were completely evacuated. The process of defecation lasts from two to four days, at which time he is sick and becomes much exhausted ; the dejections look like brown paper chewed.

There is free escape of gas per anum. The weight of fecal matter at one dejection was approximately obtained. He was accidentally weighed just before the movement

and again as soon after as he could get to the scales. The difference was forty pounds. The longest interval between any fecal discharges occurred four years since, and was eight months and sixteen days. His abdomen when loaded is hard, the colon immensely distended and easily traceable.

He is a laboring man, does light work on a farm in a moderate way. He has been under the care of many physicians of all kinds, both intelligent and otherwise, and every imaginable treatment, followed by no permanent benefit.

P. S. Since writing the above report, Dr. Bishop writes me that he has pursued the course of treatment agreed upon by us last spring, and has given to B. the elixir of cinchona, iron and strychnine, with occasional small doses of calomel, the result of which has been evacuations at shorter intervals, so that his body was diminished somewhat. From this date given by Bishop, 1874, down to the present time (I do not mean the date of this report) but the time he first called me to treat him, there has been no material change in his symptoms."

The treatment agreed upon by Doctors Strong and Bishop only improved his condition for a few months. Mr. Brooks called on me some two months previous to his death. He first complained of pain in his back, in the region of the kidneys, of loss of appetite and occasional nausea. His tongue was covered with a yellow fur, and his urine was scanty and had a dark, dirty appearance, without much, if any, sediment. I gave a few doses of hyd. cum creta, with Dover's powders and nitre and buchu; he appeared languid, and was inclined to keep the bed a part of the time, through the day. Some eight or ten days later I was called again; found him in great pain in the bowels, and in the left side in the region of the heart; his whole body appeared full and hard; he occasionally vomited. I immediately gave morphine hypodermically, which gave prompt relief, but the anodyne treatment had to be continued for about two days, during

which time his bowels were well evacuated. In a few days he was up and about as usual. In about two weeks he had another similar attack and was relieved by the same treatment, but during this time his tongue and urine gave evidence of deranged secretions ; in about ten days he began to suffer with severe pain in his head ; it came on in the morning and passed off at evening, and was attended with increased circulation and heat ; his thirst was extreme ; his pulse ran from 110 to 120. I gave him the treatment that I judged his disease indicated. In about a week he recovered, a good appetite followed, and he gained strength quite rapidly, eating largely of hearty food, which he generally craved. About ten days subsequent to this attack, a severe pain in the stomach commenced, followed by great distention of his entire body, with copious evacuations. The pain soon reached his heart. I gave him an hypodermic injection of acetate morphia, followed by large doses of tincture of opium, which gave him considerable relief for about twelve hours, but the evacuations continued.

Pain returned, with greater severity about the heart and lungs, his respiration soon become labored, got no relief from anodynes, and in about forty-eight hours from this attack death came to his relief.

This attack was quite similar to those which he had while under my care every time he had evacuation from the bowels, only much severer, and he sank under the exhausting effect of the pain. He called these attacks diarrhœa. From the knowledge I obtained from my own observation and from Mr. Brooks, I came to the conclusion that he never had fecal evacuations except from accumulations of gas, generated in the stomach.

This brings us to the post-mortem examination which was had the day after his death, (January 22, 1876). Called Dr. Strong, of Westfield, Dr. Rogers, of Dunkirk, and Dr. Thompson, of Angola. The first part examined was the colon. That which first presented, was what appeared to be the ascending transverse and descending

colon. It presented nearly a smooth surface, with but slight, if any, evidence of the longitudinal and circular bands that characterize it in its normal state. On examining it minutely, it was found to extend into the thorax at least four inches above its natural position, crowding the heart and lungs up before it to a transverse line one inch above the nipples; its length was six feet and three inches; its circumference was, in an undistended state, thirteen inches. It was not quite uniform in size, being the largest near its termination in the rectum. It diminished rapidly after passing over the prominence of the sacrum. About three inches below, the rectum was found contracted down to about one inch in diameter where the coats appeared thicker and more muscular. About six quarts of fecal matter were retained. The liver was $5\frac{1}{2}$ inches thick and nearly double the natural size; the spleen was considerably enlarged; heart small; stomach natural; kidneys small; lungs greatly compressed.

What appears the most remarkable in this case is the fact, that such an organic change should take place so suddenly in a young child as to oppose successfully the natural efforts of nature, and as he approached manhood the resistance increased until most of the internal organs were displaced or otherwise interfered with, and his entire body or thorax and abdomen permanently enlarged.

This case shows another fact that is remarkable. This condition was tolerated twenty-four years, was attended with great suffering, got no benefit from treatment, and still his system was fully developed. Was this hypertrophy? was it paralysis? was it the result of inflammation, and could he have been relieved had the case been understood?

P. S. On looking over what I have written, I discovered I had overlooked an important part of the description of the post-mortem examination. Drs. Rogers and Strong did the work, while I took notes of the exami-

nation. When they had examined the colon and the liver, spleen, stomach and the situation of the heart and lungs, they appeared to be satisfied that they had discovered enough to account for the symptoms in the case. I suggested to them that I believed the cause of the obstruction was in the rectum which had not been disturbed, but the colon they had removed, which at the time contained $1\frac{1}{2}$ gallons of thin feces. They did not heed my suggestion and said to the family that the examination was satisfactory, they had found all that was desirable. The second day after the body was interred, Dr. Rogers obtained leave of the parents to disinter the corpse and make a further examination. The rectum was then removed, which on examination was believed to unfold the mystery. It was apparently contracted when compared with the colon, but this was only apparent when its organic change showed that its muscular coat was greatly thickened. I should think its thickness was at least three-sixteenths of an inch, and in fact the whole rectum appeared thickened or hypertrophied and unyielding. A ball of hard fecal matter was found in the rectum about one inch in diameter. I have learned from the patient and his parents that his evacuations were always thin and without hardened feces preceding it—unlike all other cases.

CINCINNATI, March 13, 1876.

MY DEAR DOCTOR:

It seems proper that I should communicate to you some facts respecting the case of single cyst, about which I wrote you some time ago. I have just seen the patient, whose appearance and feelings are those of vigorous health. I was curious to know if there had been any new deposit of cystic fluid. Its presence is not very decided, but I am satisfied that refilling has commenced. In addition, I have detected an elongated and hardened tumor in the left ovarian region—a complication not before apparent.

It is now more than ten months since the last tapping, during which time the patient has not had a day of ill health, nor is there at this time any inconvenience from the presence of tumor or cyst.

The solidity of a part of the morbid growth has changed the aspect of the disease so far as relates to the cure. The long intervals between the emptying of the cyst by tapping, and the general good health of the patient, justified the belief that a formidable operation might not become necessary. The future is somewhat darkened, and in view of this fact, the practical question presenting itself is, what plan of treatment is best calculated to secure comfort and safety?

On one point my friends of the knife differ in opinion. One advocates an operation before the morbid growth has attained any considerable size, and before the general health has become impaired. Another urges postponement until the entire system becomes more or less involved in the mischief.

The former view has the stamp of plausibility, and yet, cases of the most encouraging character, in the hands of skillful operators, have terminated fatally. Others, again, in which there was every evidence of failing health, the operation requiring extensive tearing and cutting, have survived the shock. We are then without sufficient data upon which to form a positive prognosis.

Is it not the wiser plan, in cases of single or even double cyst, to evacuate the fluid by tapping rather than run the certain hazard of ovariectomy? The patient to whom I have more special reference is in good general health, and will probably remain so until the cyst enlarges, so as to produce mechanical inconvenience. An evacuation of the fluid will be followed by a return of good feeling. Thus may the life and usefulness of the patient be prolonged many years. Such are my inducements for opposing the formidable operation of removal of tumor and cyst.

Truly,

M. B. WRIGHT.

DR. W. H. BYFORD, Editor, etc.

Reports of Societies.

CHICAGO SOCIETY OF PHYSICIANS AND SURGEONS.

Regular Meeting, Jan. 10, 1876.

(Reported by EDW. WARREN SAWYER, M.D.)

Dr. Walter Hay was elected to the chair *pro tempore*.

Dr. Lenneker presented to the Society a paper on the surgical treatment of primary retro-flexion of the uterus. The first part of the paper was devoted to the clinical history and general consideration of the subject. The essayist then detailed an original operation for the relief of this displacement. An incision, some two lines in depth, is made the entire length of the internal surface of the anterior uterine wall, along the median line; the external os uteri is cut through on each side with a pair of scissors, and the internal os incised to the depth of two lines upon each side. The edges of the incisions are kept open for a time, and the uterine cavity washed out with pure carbolic acid dissolved in alcohol. Three days after the operation the uterus is righted, and held in place by a modified Noeggerath pessary.

The incisions into the internal surface of the uterus are made with a series of three knives, devised by the author; each knife is a blade projecting from a flexible sound-like staff. The knife intended for the anterior incision is upon the convexity of the sound; while the blades are upon the sides of the sound in the knives intended for the lateral incisions.

The essayist has already done the operation in some twenty instances, and claims success in every instance. Moreover, he has never seen harm follow the procedure. The paper was well illustrated with drawings of instruments, position of patient, etc.

Dr. Sawyer read the notes of a case which had recently occurred in his practice: A complete placenta prævia,

in a woman laboring under transitory Bright's disease ; subsequent pelvic cellulitis, puerperal mania, and death on the sixteenth day ; still-born foetus, weighing thirteen pounds.

CHICAGO SOCIETY OF PHYSICIANS AND SURGEONS.

Regular Meeting, Feb. 14, 1876.

(Reported by EDW. WARREN SAWYER, M.D.)

President, Dr. Bevan, in the chair.

Dr. Chas. E. Davis reported two cases of congenital syphilis, as follows :

MR. PRESIDENT AND GENTLEMEN :

I desire to call your attention briefly to two cases of syphilis, one congenital and the other acquired, which are interesting, not only because they illustrate the remarkable tenacity of the disease in an infected constitution, but also because they exemplify a marked tendency to repair when the morbid agency is removed.

On the 19th of November, 1875, Mrs. G—— brought her child to me, a male infant four months old, having two large and scaly ulcers upon its face, one upon the forehead, the other covering the lower third of the nose, involving both nostrils and well nigh occluding them. Another large ulcer existed upon the left parietal eminence. With one exception, all the finger and toe nails had sloughed off, the matrix in several cases being the seat of dirty, greyish ulcers, and the extremity of each digit being clubbed. The skin was of a dull, coppery color, the eyes watery and of a dull, leaden hue. There were small blisters on the soles of the feet and also on the lips.

The superficial veins of the head were much enlarged, varicose and filled with dark blood, which presented a remarkable contrast with the dry and hairless scalp. The cervical and axillary glands were slightly enlarged, and the fauces congested but apparently not ulcerated.

On various parts of the body were dark patches which the mother said were the sites of former ulcers similar to those on the face.

The child had been born prematurely, and at birth was puny, cross and feeble. In 24 hours it had become covered with scarlet patches.

The mother seemed ignorant of the nature of the disease affecting her infant, and, in answer to my questions, affirmed that she had not suffered from any eruption, swollen glands or other evidences of disease for years. She admitted, however, that soon after her marriage, three years before, she had had some "soreness of the groin," for which she had received some medicine from her husband, but that she had since remained perfectly well. She had had two abortions, one at 7 months and one at 6 months, the causes of which she did not know. Neither foetus had been seen by her.

Her husband, whom I had an opportunity of examining, was a robust and healthy looking man. He admitted that he had suffered from syphilis seven years before, for which he had been at once treated, and from which he had not since suffered.

The child was placed upon a careful hygienic regimen, Nov. 19, 1875, and the following alterative diuretic in half-teaspoonful doses, three times daily, was administered in sweetened water: *R.* Potass. bromid. 3 i ; Syr. Stillingiæ Co. 3 ij ; Spts. nitr. dulc. 3 ss ; Aq. fluv. ad 3 iv . *M.*

After the first day, I ordered one-eighth of a grain of calomel in one grain and one-eighth of sugar of milk, to be given at noon in place of the diuretic.

Nov. 21. The color of the skin somewhat improved. The urine yellow, profuse and offensive. Two powders daily, and one dose of the diuretic.

Nov. 23. Marked improvement in the color and condition of the ulcers; slight feverishness, restlessness and parched lips. Medicine discontinued for two doses.

Dec. 1. The ulcers quite healed; the skin clean; the

eyes bright; all signs of proper nutrition returning. No further unpleasant effects from the medicine, which was ordered to be continued unless some disagreeable effect was produced, and then omitted.

Dec. 4. The child was suffering from a severe cold and had not taken medicine for one week.

Three small patches were then visible on the head, which slowly deepened in color. The medicine was then resumed with the improvement which you can notice. The hair which you see on the scalp, appeared three weeks ago.

(The infant was presented to the Society.)

The points of interest in this case, are :

1. That an infant so diseased should survive.
2. That, under any treatment, its feeble organism should be able to repair such extensive lesions in ten days.
3. That toleration of so extended a course of medication should be established in so young an infant.

The second case I report, is that of the nurse of this child, and it illustrates the fact that an infected individual may remain free from external evidences of the disease for months, or until some intercurrent disease arouses it to an activity which seems the more energetic for its period of incubation.

When I first saw Mary McM—, she was a remarkably healthy-looking and robust Irish servant girl, with a clear complexion, of good habits, modest deportment and an unblemished moral reputation. I was called to attend her Nov. 20, 1875, for a severe cold with menstrual suppression, resulting from washing some stone steps while suffering from the periodic discharge. There was some ulceration of the fauces which proved persistent, but which, considering the character of the girl, did not awaken my suspicions. The menstrual flow was not restored. Soon after, Dec. 29, 1875, she came to consult me for a "queer heat" brought out by some warm

baths. I at once recognized the syphilitic nature of this eruption, and elicited the following facts: She had come from Canada during the preceding June, and was sent by a charitable institution to nurse the mother of the infant whose case is detailed above, during her confinement. She was thus engaged during seven weeks, two before and five after that event. She states that her sympathies having been greatly excited by the condition of the puny infant, she had taken it to bed with her, kissed it and soothed it when the mother was incapable of rendering it such services. This was admitted before she was aware of the nature of the malady with which she was afflicted.

This patient was transferred to the Women's and Children's Hospital, Dec. 29, 1875, where she was treated with alteratives and mercurial inunction for eight days with decided benefit, but was then made an out patient in order to make room for other applicants. She was then transferred to the County Hospital where she suffered (Feb. 12, 1876,) with some intercurrent inflammatory disorder of the bowels. Convalescence began on the 27th day of February, 1876. On the 6th of March, 1876, she was able to sit up in bed, and the syphilitic manifestations upon the surface of the skin were rapidly disappearing.

In commenting upon these cases, Dr. Hyde remarked, that it would be interesting to ascertain the exact facts respecting the syphilitic history of the father, the syphilitic infection of the mother, the site of inoculation of the nurse, and the precise sequence of events in the case of the latter. It is an interesting question which is variously answered, whether it is possible for a syphilitic father to beget a syphilitic child without the intervention of the disease in the mother. A syphilitic father when the mother is free from the disease, rarely, if ever, begets a syphilitic child, the popular idea upon this subject being greatly at fault. A child congenitally syphilitic argued a syphilitic mother. Whether the influence

of the mother is transmitted to her offspring merely through the medium of the blood, or whether the characteristic lesions of the child syphilitic at birth are largely due to the degenerative changes in the placenta which have lately attracted the attention of eminent obstetricians as well as syphilographers, are also questions of interest.

There are two classes of congenitally syphilitic children, the curable and the incurable; the latter, surviving the dangers of syphilitic foetal life, soon succumb. The former class are best treated by mercurial inunction, the medicament being applied to the swathing bands of the infant.

Respecting the danger to the practitioner referred to by the reporter as occurring in the management of syphilitic patients, Dr. Hyde remarked further, that it was a significant fact, that the large proportion of medical men thus infected, are either of uncleanly habits or were accidentally inoculated while making the vaginal touch, the finger thus situated being bathed with the moist secretions of the part and being subjected to a high temperature admirably calculated to favor the contagious process. Under such circumstances the cutaneous integument of the finger becomes a quasi-mucous surface, and, as such, incurs the dangers of exposed mucous surfaces.

THE CHICAGO MEDICAL SOCIETY.

Meeting March 6, 1876.

Dr. N. Bridge reported a case of perityphlitis in a female, aged about forty, where the disease had existed for three or four weeks, following obstinate constipation and impaction of fecal matter in the cæcum and ascending colon. The bowels had been emptied early in the progress of the case by cathartics and injections—several soft bilious dejections following a larger discharge of hard

scybalous masses, and the tumefaction in the ascending colon disappearing. There was a slight tumefaction in the ileo-cæcal region that was exceedingly tender to the touch, and after each movement of the bowels was painful often for several hours. Pain was produced in this part and in the groin on flexing the right thigh ; at times it was quite impossible to move the thigh. Late in the case, the glands in the groin became slightly enlarged and very tender. The temperature had been one to two degrees (F.) above the normal in the morning, with an increase of one to two degrees in the evening throughout, and the pulse had ranged from 75 to 110. The tongue had been intensely red early, but becoming less red and more moist toward the termination of the case.

There were during much of the time night sweats, and the general prostration was considerable. Although a small quantity of purulent matter was discharged from the vagina, it could not be demonstrated by examination as coming from the point of inflammation.

Two weeks after the bowels were emptied, or supposed to be, there occurred half a dozen discharges, in three or four days, of large, hard, and, many of them, very dry masses of fecal matter in large quantity. These discharges were, in most instances, induced by injections and small doses of castor oil. Following them the patient speedily got well. She had eaten little or nothing but milk and broths. The question of the age of the feces discharged during the convalescence was an interesting one. Were they in part the material of the old impaction, or had they been formed during the sickness? Dr. B. had only seen one of the dejections ; this one was clearly recent in its formation, but the descriptions of others given by the patient and her husband would suggest the thought that, because of their dryness and hardness, they might have been incarcerated in the bowels from the beginning of the ailment.

In either case he was confident the soft fecal discharges which occurred during the first week of the case, and

following that of scybalæ, had come from the small intestines and *above* the seat of the accumulation in the caput coli and ascending colon.

Dr. H. M. Lyman had seen the case in consultation, and thought there was a slight grade of general inflammation in the intestinal walls, as well as that localized in the neighborhood of the ileo-cæcal region.

In the discussion of the case, Dr. Lyman believed it perfectly supposable that the fecal matter finally discharged had been formed during the existence of the inflammation. Intestinal contents in contact with inflamed mucous membrane, often become very dry and hard in a surprisingly short time. He thought this fact was not sufficiently borne in mind; forgetting it, practitioners had been led to suppose that specimens of fecal matter—grown hard and dry in contact with inflammation—only a few days old, had been impacted in the abdomen as many weeks or months.

ROCK RIVER MEDICAL SOCIETY.

(Reported by F. E. SHERMAN, M.D.)

The Society convened in Hartford, Nov. 20, pursuant to adjournment. President Senn in the chair.

Dr. Lynch read an essay entitled "The Relation of the Heart's Action to the Nervous System and to Mental and Emotional States." This was followed by the presentation of the following case: Mr. A—G—, æt. 36, farmer; married; of temperate habits; never had had any severe illness. About two years ago, he noticed a sensation of numbness and pricking in the right upper extremity, which in a few weeks subsided and appeared in the feet, gradually extending upward until the hips were affected. After this his condition remained unchanged to the present time. He now finds it difficult to keep the lower extremities warm, and tires easily on walking; the muscles feel sore, but he walks naturally

without loss of co-ordination. The abdominal and thoracic viscera are in a healthy condition and their functions performed in a natural manner. He has not been addicted to excess of venery, but there is a partial loss of desire. The battery indicates loss of sensory but normal motor power. On applying compresses he perceived two points $3\frac{1}{8}$ inches apart, on the outer side of the left leg; $\frac{3}{4}$ inch on the inner side. On the outer side of the right leg, $7\frac{3}{8}$ inches; inner side 2 inches. It was thought to be due to atony of the nerves from mechanical compression by a morbid growth or to chronic spinal meningitis.

The regular discussion related to the Duties of a Physician in Natural Labor.

The next meeting will be held at West Bend, Dec. 4. Subject for discussion: "Non-inflammatory Softening of the Spinal Cord."

THE NORTH CENTRAL MEDICAL ASSOCIATION.

(Reported by F. COLE, Sec.)

This Association, comprising the counties of Woodford, Marshall, Putnam, Livingston and La Salle, held its annual meeting at Wenona, Tuesday, December 7th. Dr. E. P. Cook, of Mendota, President, in the chair.

Drs. D. E. Thomas, of Lacon, and J. W. Evans, of Varna, were elected members.

The following reports were made: "The Germ Theory"—Dr. D. W. Lamme, Eureka.

"Differential Diagnosis"—Drs. A. Reynolds, El Paso, and Wm. O. Ensing, New Rutland.

"New Remedies"—Drs. G. F. Roberts, Lacon, and J. S. Whitmire, Metamora.

"Improvements in Surgery"—Dr. F. Cole, El Paso.

"Gynecology"—Dr. E. P. Cook, Mendota.

The following officers were elected for the ensuing year: Drs. I. H. Reeder, Lacon, *President*; A. Reynolds, El Paso, *Vice-President*; F. Cole, El Paso, *Sec'y and Treasurer*.

The president appointed the following committees to report at the next meeting :

"Bloodletting in Acute Inflammation"—Drs. J. S. Whitmire, Wm. O. Ensign, A. Reynolds.

"Plaster of Paris in the Treatment of Fractures"—Drs. I. H. Reeder, D. E. Thomas, Enoch Blanchard.

"The Study of the Natural History of Disease"—Drs. G. Newkirk, G. F. Roberts, J. W. Evans.

"The Best Means to Encourage and Sustain Local Societies"—Drs. F. Cole, L. G. Thompson, W. L. Downey.

Resolutions were passed, asking that local and State medical societies encourage a higher standard of medical education. Also, that Drs. Whitmire and Roberts be requested to publish the portions of their papers pertaining to original research with New Remedies.

The following delegates were appointed :

To State Medical Society—Drs. E. Blanchard, Minonk ; I. H. Reeder, Lacon ; D. W. Lamme, Eureka ; Wm. O. Ensign, New Rutland.

To American Medical Association—Dr. F. Cole, El Paso.

Adjourned to meet at the same place in one year.

Hospitals.

COOK COUNTY HOSPITAL.

Service PROF. J. P. ROSS.

(Reported by D. A. K. STEELE, M.D.)

CASE 1. *Progressive Locomotor Ataxia*.—W. H. S., æt. 26, bricklayer, American ; admitted Sept. 15, 1875. Patient was in the army as drummer for twenty-one months. For six months afterwards he was employed as a government teamster. In both situations was constantly exposed to changes of temperature and frequent wettings. He drank occasionally, enjoyed pretty good

health until about six years ago, when one evening he suddenly became very faint and dizzy and was obliged to go to bed. During this attack, which lasted about twenty minutes, he had no pain but a great difficulty in breathing. Slept all night and was able to work the following day. With the exception of an attack of intermittent fever which continued more or less severely for one year, he was well until about sixteen months after the first attack, when one evening while walking the streets he again became weak and dizzy and was obliged to sit down. Carried home he was ill during the next two months, seized with the same sensations whenever he attempted to walk, while he felt quite well when sitting down. Appetite was good. At this time he also noticed that he could not walk well in the dark, that he would get dizzy on stooping over, would fall as soon as he shut his eyes. Ever since this time (for the past three years) he has suffered from this difficulty in walking in the dark or with his eyes shut, and has been subject to attacks of faintness and vertigo, has occasional cramps of the muscles of the calf of leg.

Patient well nourished ; pulse, 54 ; resp. 24 ; appetite good ; bowels constipated. Is unable to stand with eyes closed and heels approximated, immediately staggers and would fall if not supported. Is unable to walk with eyes shut, and has to watch his movements carefully when walking with open eyes ; sensations good in the limbs ; arms seem to be but little affected ; can touch any part of the body with the fingers when the eyes are closed. After a brief treatment with fluid extr. ergot the patient left the hospital Oct. 5.

CASE II. *Cancer of Pylorus*.—E. M., æt. 40, Irish laborer ; admitted Oct. 13, 1875. Was perfectly well until last February, when he was attacked with vomiting and severe pain in the stomach ; pain was lancinating in character, and has continued, more or less, ever since. Could not retain his food ; has at times diarrhœa ; has lost seventy-five pounds in weight, and is very much

emaciated ; tongue furred ; pulse rapid and feeble ; has severe pain in stomach, cries out as if in great agony ; frequent vomiting. Lungs and heart normal ; can not find any tumor in hypogastrium by palpation. Patient evidently was failing rapidly, and he died Oct. 15.

Autopsy twelve hours after death. Find a mass of schirrhous deposit at pylorus and in tissues about it. Secondary cancerous deposit in liver ; other organs healthy.

CASE III. *Cirrhosis—Dropsy.*—C. M., æt. 36, laborer, German. Patient was well until about six weeks ago when he began to be troubled with shortness of breath when he walked fast ; occasional pain in the left chest and shoulder ; appetite good ; bowels regular.

Three weeks ago his feet, legs and abdomen began to swell, and have continued swollen ever since. On admission well nourished. Skin normal ; tongue large, flabby, and slightly furred ; urine high colored ; feet and legs œdematous ; abdomen contains fluid.

Physical examination reveals first sound of heart almost purely valvular, no heart murmurs ; no albumen in urine ; liver irregular.

Ordered R. Ext. Colocynth Co. gr. ij. ; Potass. Bitart. 3j. Ter die.

24th. R. Quinia Sulph. gr. ij. ; Strychnia Sulph. gr. $\frac{1}{32}$; Tr. Ferri. Chlor. gtts. xv. Ter die.

Oct. 19th. Patient leaves hospital much relieved ; scarcely any dropsy left ; only slight œdema of the feet and ankles during the day.

CENTRAL HOSPITAL FOR THE INSANE, JACKSONVILLE, ILL.

Case of Peritonitis from Perforation of the Stomach by Foreign Body—Death—Post-mortem.

(Reported by F. C. WINSLOW, M.D.)

F—F—, male, æt. 26 ; insane for a year, and during the six months of his residence here was filled with delusions—constantly seeing and conversing with ghosts, and more recently manifesting suicidal propensities.

March 6th. He was visited by friends, and although it was remarked that he was not quite as well as usual, yet he was dressed and around the ward in his ordinary manner.

7th. In the morning was too sick to leave his bed, and on examination was found lying on his back with the knees drawn up, abdomen very tender and slightly tympanitic, diaphragm fixed, breathing chiefly thoracic. The face was flushed, skin hot, tongue dry, brown and tremulous; pulse 120 and wiry in character. He had vomited a little greenish matter in the morning, and refused all ingesta except cold water. The case was pronounced peritonitis, and strong suspicions were entertained that he had swallowed some foreign substance, as a piece of glass or metal.

Without pausing to detail the history, it is sufficient to say that the case presented from day to day an aggravation of the symptoms, and terminated fatally on the 12th.

Post-mortem four hours after death; *rigor mortis* beginning; abdomen tense, but not enormously distended; an incision was made extending from the ensiform appendix to the pubes, and the structures carefully divided down to the peritoneum. On opening the peritoneal cavity a small quantity of serous fluid containing flakes of lymph was found. Both the abdominal and visceral peritoneum—the latter particularly—were found highly congested and inflamed. The stomach contained a little greenish fluid, while the small intestine was almost empty. On passing the hand behind the stomach to remove it, the operator felt a sharp body and withdrew an ordinary sewing needle, the point of which protruding through the gastric walls he had perceived. The intestines were removed entire, and evidences of severe inflammation throughout the small intestine were everywhere present. A condition of positive softening was observed in one portion about ten or twelve inches long, this particular portion of the intestine marking the location of another foreign body—a piece of knitting needle over two inches long. The large intestine was filled with thin yellowish fecal matter.

The needle was found in the stomach, and it is supposed the irritation caused by the point against the diaphragm increased the pain of the respiratory movements always observed in peritonitis.

Summary of Progress in the Medical Sciences.

I. SURGERY.

1. *Fatty Embolism as a Cause of Sudden Death after Injuries of the Bones.* (*The Med. Record*, New York, Jan. 29, 1876; *Berlin Klin. Wochenschrift*, Nov. 1 and 8, 1875.)

Prof. V. Czerny, of Freiburg, taking the reports of two cases as a text, discusses this subject mainly in its clinical aspects. The first case was that of a healthy man, aged 24, who, Nov. 16, sustained a simple fracture of the right thigh in its upper third, caused by falling off a sand bank. The surgeon who was called to him, found that he suffered little pain at the seat of the fracture, but could not lie down without difficulty, especially on his back, and could not breathe easily.

On the 18th, the swelling having subsided, a pasteboard splint was applied, the patient at the time finding it very difficult to maintain a half-sitting posture. On the night of the 20th, great dyspnoea and depression suddenly manifested themselves, without inflammation, and he died on the 22nd.

The authorities subsequently had the body disinterred and examined. The fragments of bone were in proper position, but both lungs were full of venous blood, and the membranous substance, and blood vessels of the brain also, were similarly filled. He cites the opinion of Wagner, who, in 1865, states that a sudden fatty embolism was capable of inducing hyperæmia of the lungs, œdema and death; and in 1866, of Busch, who established that the medulla of the bones, when crushed, was taken up by the veins and lymphatics, and caused emboli in the lungs, and death.

Czerny's second case is as follows:

J. S., aged 32, a strong and healthy man, sustained a simple fracture of the right thigh just below the middle, the consequence of a fall from a scaffold. He also had a flesh wound of the chin which was sewed up, and dressed antiseptically. He was taken at once to the clinique, where the limb was dressed and ice applied. The patient complained very little of pain, although quite conscious. This occurred Nov. 14, 1874. On the following day, Prof. C. in a clinical lecture on the case, mentioned that although free from fever, the previous day, his temperature that morning was nearly 103° F., and he gave a guarded prognosis. In the evening the temperature was almost a degree higher. Although at night he was free from pain, he was sleepless (?), and had at intervals of three hours doses of about one-eighth gr. each of morphia. Some hours after midnight he was found comatose, with deep and frequent respirations, accompanied by coarse râles. The chest was resonant on percussion. Pulse 100, full and strong. He was bled from the arm, but obtained no relief and died at half past seven, thirty-eight hours after the injury.

At the autopsy, both lungs contained air and fluid. The left side of the heart was contracted, and there were coagula in both sides. The vessels of the pia mater and of the brain were distended with blood, and in both of these were numerous small ecchymoses. There were extensive extravasations of blood at and about the seat of fracture, but the femoral vein and artery were not wounded. The microscope revealed throughout the lungs a firm injection of all the smaller arteries and the capillaries, with clear fluid fat. Likewise in the brain, corresponding to the small ecchymoses, were branching fatty emboli in the vessels. Fat was also in the vessels of the kidneys and liver. The fatty embolism of the lungs was considered a sufficient cause of death.

Prof. C. quotes the statement from Busch that fatty embolism begins in the first few hours after the injury. The difficulty of respiration would point to this condition. Possibly the slight sensitiveness to pain may also be symptomatic of it.

Shock cannot be held to explain a death after injury, when an interval of several hours of good condition has intervened between the injury and death. He concludes that fatty embolism is of essential significance only after injuries of the bones, and perhaps osteo-myelitis. We may, continues Prof. C., suspect this condition when after such injuries a rapid failure sets in, with interference with the circulation in the lungs; and secondly, in the general capillary circulation, without other cause, and very shortly after the injury is received.

2. *Luxation of the Thumb Backward.* FARABEUF. (*L'Union Médicale*, No. 25.)

The original paper of this author is admirable, and the anatomical points involved are carefully discussed, many experiments having been made on the cadaver.

The essential cause of the irreducibility of luxations of the thumb backward, is the interposition of the glenoid ligament between the articular faces; but the sesamoid apparatus to be found in this ligament and in especial the external sesamoid bone, are the chief factors.

The whole question is made to turn on the mode of the articulation of the sesamoid bones with the phalanx. The latter is so disposed in the articulation, that it will permit of extreme flexion, but not of extreme extension—cartilage cannot be applied to cartilage. The sesamoid bone and the phalanx (or rather the articular face of the latter,) form a right angle which F. compares to that of a table-leaf which can be lowered but cannot be raised to a higher level than that of the table itself.

If we suppose a movement of extension in the thumb sufficient to tear the glenoid ligament, where does the rent occur? The mode of insertion of the glenoid ligament upon the metacarpus and the phalanx enables us to understand that the metacarpal insertion will first yield. In 100 experiments, F. has found the phalangeal insertion torn but once. It can then be accepted as a fact, that when the extension of the thumb

is sufficient to rupture the glenoid ligament, the sesamoid bones will remain attached to the phalanx.

If, in the movement of extension, the sesamoid bone does *not* slide beyond the cartilaginous face of the metacarpus, the luxation is *incomplete*. If the phalanx is carried more or less further back upon the dorsum of the metacarpus, carrying with it the sesamoid bone, the luxation is *complete*. Finally, there is a third variety named *complex*, the mechanism of which is carefully studied, and which accounts for the irreducibility of certain luxations.

When the phalanx is dislocated upon the dorsum of the metacarpus, it is maintained in this position by the muscular button-hole formed by the sesamoid muscles. From this it results that if the thumb be bent downward, the sesamoid bone is reversed, so that its cartilaginous face looks upward, and it becomes situated behind the phalanx instead of in front of it. It is this inversion of the sesamoid bone which constitutes the *complex* luxation.

Given this disposition of the osseous surfaces, the difficulty lies in the impossibility of bringing the sesamoid bone down over the articular face. Reduction is possible in such cases only when the two articular surfaces are capable of separation to the extent of the length of the sesamoid bone—that is, to the extent of about six millimetres. But the intact portion of the ligaments resists this separation, so that the luxation becomes irreducible.

The reduction proposed by Farabeuf is based upon the reciprocal relation of the luxated surfaces. It is needful:

1. Never to flex the finger upon the metacarpus, for this may transform a *complete* into a *complex* luxation.

2. To commence by pressing the thumb backward if it has been depressed.

3. To seize the first phalanx with a pair of forceps, hold it at right angles to the metacarpus, and give it a movement in its totality from behind forward, so as to force off the sesamoid bone. It is the phalanx itself which does this.

4. If the luxation is several days old, to give it a lateral motion, so as to determine a rupture of the lateral ligaments.

5. In cases of irreducible luxation, to make subcutaneous section of the two lateral ligaments, and reduce afterward.

“En résumé,” says the reporter of the Surgical Society, “M. Farabeuf seems to me to have demonstrated that the cause of irreducibility in thumb luxations, arises not only from the interposition of the glenoid ligament, but further and more particularly from the turning over of the external sesamoid bone, which becomes, as it were, buttressed upon the dorsum of the metacarpus. He has shown also the exceedingly important rôle of the ligaments and the muscular button-hole, though these are but secondary factors. He has produced before me upon the cadaver irreducible luxations; and I have been in position to assure myself of the reality of the mechanism he describes. The author has collected everything

available upon this subject from the literature of all nations, and has produced a work which displays erudition, critical comparison and much original observation. It is accompanied by a large number of figures ably executed by the author."

3. *Radical Cure of Hernia.* PROF. NUSSBAUM. (*Allg. Med. Central-Ztg.*, 18, 1876.)

The favorable results obtained by Lister's antiseptic treatment of lesions of the peritoneum encouraged the professor to attempt the cure of hernia by catgut sutures in a few cases where an operation was imperatively indicated by the impossibility of getting a truss to retain the rupture.

After a thorough evacuation of the bowels by cathartics, the patient was narcotized and his scrotal hernia was well exposed by a long incision through the integument and the other coverings. All adhesions of the hernial sac with the testicle and spermatic cord were severed, and after a careful reposition of the intestines contained in it, the sac was sewn up by catgut sutures as near the inguinal canal as possible.

One centimetre below these sutures the empty sac was cut off and the upper end of it, with the stitches, pushed into the abdominal cavity. The external wound was then closed by antiseptic silk sutures, and the case was treated by a strictly antiseptic dressing.

The healing process went on unattended by any untoward symptoms, and the immediate result was exceedingly satisfactory. Still the professor thinks it premature to venture a definite opinion on this operation.

4. *A Remarkable Case of Skin-grafting.* DR. AUG. REVERDIN. (*Deutsche Zeitschr. f. Chir.*, vi., 418.)

A woman, 21 years of age, while working in a factory was caught by her hair in the machinery and the whole scalp was torn off her head. This accident occurred in April, 1872, and on October 10, of the same year, she was admitted to Prof Lücke's clinic, in Strassburg, with an immense granulating wound which measured 14 inches (35 centimetres) from the root of the nose to the back of the head, and 11 inches (28 centims.) from one ear to the other. The upper part of the left ear was torn off with the scalp. The surface of this wound exhibited pretty good granulations and a copious secretion of pus, and was surrounded by a stripe of cicatrized and very vascular skin, about one inch (2 to 2½ centims.) in width.

After eight days of dressings with strips of adhesive plaster, the granulations had a more satisfactory appearance and the grafting process could be commenced.

For excising the grafts, Dr. R. used a lance-shaped knife (like the iridec-tomy knife) the blade of which was concave at the upper and convex at the lower side. From the knife the excised grafts could easily be removed to the wound with a needle where they were secured in their places by plaster strips. When the grafts had taken, the surrounding granulations were touched by lunar caustic in order to favor the formation

of epidermis. After seven months the whole wound was healed, and the head was covered with a sound cicatrix in which large blood vessels could be seen.

During the treatment the doctor made various experiments with transplanting pieces of the skin of dogs and rabbits, and also with larger pieces (one to two inches square) of human integument taken from the amputated leg of a boy. The latter transplantations were successful, while those made with animal skin all failed.

II. PRACTICAL MEDICINE.

1. *Fatty Degeneration of Liver and Kidneys Consecutive to an Extensive Burn.* COUSTON. (*Le Progrès Méd.*, No. 9.)

A patient (male, 27 years old, who had enjoyed previous health without syphilitic, scrofulous, tuberculous or alcoholic antecedents), in consequence of an accident with a kerosene lamp, was extensively burned upon the posterior part of the trunk, from the lumbar region to base of the much. The pain, excessive at first, was partially relieved on the second day afterward. There was no cerebral excitation, only moderate fever with anorexia, dyspnoea and dysuria, with a red and very scanty urine. A persistent diarrhoea supervened, without colic or abdominal pain. The abdomen remained supple, and there was no blood in the stools. Then followed profuse sweating, separation of sloughs, extensive suppuration of the burned surface, formation of eschars over the trochanters and shoulder blades, whose fall left bare the articular capsules, great prostration, and finally death.

At the autopsy the lungs were found intensely congested, and the liver enormously hypertrophied and fatty in all parts save in the lobus Spigelii. The renal substance was also in a granulo-fatty degeneration.

The femoral and external iliac veins of the left side were filled with a clot, which terminated exactly where the primitive iliac vein arises. In detaching the femoral vein, some collateral branches were divided, which gave exit to a drop of pus. These vessels were buried in the muscles of the external region of the thigh. It was difficult to decide whether they communicated with the trochanteric and sacral abscesses. In the femoral vein, at the points where the latter opened, were small purulent foci, perfectly encysted and separated from each other by portions of clots, which were exclusively fibrinous.

Duret remarked that venous thrombosis following a burn was rare, but had yet been noted (Guy's Hospital Reports). He had recently seen peculiar cerebral phenomena after a severe burn of the surface of the chest. There was undisturbed intelligence, but aphasia and hemianæsthesia, which disappeared subsequently, and which he was disposed to refer to encephalic thrombosis.

2. *Mumps: its Relation to the Eruptive Fevers.* COLIN. (*La France Méd.*, No. 18.)

From the comparison instituted it is evident that: (a) mumps and the exanthematous fevers have the same mode of transmissibility; (b) immunity conferred by a first attack; (c) no sporadicity; (d) frequency among children and soldiers; (e) slow and successive spread among various classes of people, when the element of time cannot contribute an appreciable influence—the disease seeming to lose its power in one situation before its extension to another; (f) but the point of contact between mumps and the eruptive fevers seems to be the simultaneity of the epidemics of the two—among the last named especially measles, which seems to precede or accompany mumps.

There seems to be likewise a species of affinity between these disorders, so far as regards the conditions which produce the “medical constitutions” in each.

A clinical resemblance may be discovered in the period of incubation and invasion, in the febrile movement, and the secondary fever which ushers in metastatic orchitis. It is true, however, that in adults the affection may be initiated by a period of calm, which does not recall the febrile movement in the pyrexias, and also that the involvement of the testicle, primary or secondary, may be so sudden and unexpected as to suggest traumatism or a venereal affection. There are other cases in which the general symptoms are severe: typhoid symptoms, convulsions with a fatal termination, intense articular pains, an exanthema or enanthema of variable degree, anasarca, with albuminuria. Colin cites cases where the latter complication has been noted, and where the metastasis has been to the kidneys instead of the testes. One fatal case suffered from orchitis, acute albuminuria and uræmia.

3. *Antagonism between Heart Disease and Tuberculosis.* PETER. (*Gazette des Hôpît.*, Nos. 97 and 99.)

There is no such absolute antagonism. Tubercles develop by preference in the rudimentary tissues (connective), and in organs or parts of organs of minimum function. Thus it is that tubercles are found at the pulmonary apices, the parts of the lung which have the least work to do because of the shortness of the upper ribs, their relative immobility, and the course of the superior bronchi, relieved by the current of air from the sense of weight. In mitral affections the inferior portions of the two lungs are, at a certain period, in a stage of chronic congestion. It results from this that the upper part of the lungs, in order to perform a supplementary labor in hæmatisis, rendered necessary by this congestion, are compelled to do extra work. From this functional hyperactivity it happens that the pulmonary apices have a diminished tendency to become tuberculous. This explains the pretended antagonism between the two disorders.

But, at the onset of mitral insufficiency, when there is less interference the circulation, and the inferior lobes are not yet affected with pas-

sive congestion, the superior lobes are then not in such a condition of exalted functional activity as to make immunity probable. Tubercles may then be developed if the patient is placed under such conditions as will ordinarily favor this process—bad hygiene, poverty, etc.

There is, therefore, no absolute immunity of the pulmonary apices for tuberculosis when there is coexistent disease of the heart. All is subordinate to the period of the cardiac disease, to the nature of the latter, and to the general condition of the organism.

(We were recently consulted by a gentleman who was suffering from mitral insufficiency with a loud systolic murmur, who had had several hæmoptyses, and unmistakable evidence of tuberculosis of the right pulmonary apex.—ED.)

4. *Thoracic Hyperæsthesia and its Relation to Acute Tuberculosis.* BOUCHUT. (*Gazette des Hôpit.*, No. 64.)

B. discovered in a child, who presented the evidences of a typhoid fever, tubercles of the choroid, the signs of an acute tuberculosis. There was also thoracic hyperæsthesia. This last symptom, which he has several times observed, should be added, he thinks, to the list of symptoms of acute tuberculosis. It points unmistakably to a lesion of the pleura which autopsies have demonstrated. This hyperæsthesia is not to be found in typhoid fever, for, when discovered, it is in every case not limited to the chest, but has extended to it, to the membranes, etc. The same is true of the tegumentary hyperæsthesia of tuberculous meningitis. Therefore whenever, in a disease of a typhoid type, there exists a thoracic hyperæsthesia, not complicated by hyperæsthesia of the limbs, it indicates dry pleurisy and acute pulmonary tuberculosis.

5. *Progressive Muscular Atrophy.* WM. ALEXANDER, M.D. (*Lancet*, March, 1876.)

Dr. A. records five cases of this disorder, with comments as to its nature. The cases resembled each other in having nervous symptoms at the beginning, in the onset being gradual, in the upper extremities being principally affected, in the absence of any hereditary quality or any specific taint, in the slight improvement following the constant current and shamponing, and in the irregular manner of the advance of the disease. The author believes the disease has a nervous and not a muscular origin, and for the following reasons: 1, The nervous symptoms at beginning—a feeling of “pins and needles,” neuralgic pains, numbness and susceptibility to change of temperature in the affected part. 2, On the muscular theory the course of the disease is inexplicable—it invades one hand, passes up the arm for some distance, then attacks the opposite hand; it attacks one bunch of muscles, and passes by another bunch in close contiguity. “On the theory that it is a disease of the cord, its course is just what we ought to expect.” 3, The treatment that was most beneficial was such as would, we might suppose, have made the disorder worse had its origin been muscular and not nervous. 4, The *post mortem* made with

microscopic examination of the cord showed the disease in this structure to be far in advance of the change in the muscles—the reverse ought to be true did the affection begin in the muscles. 5, The fact that spinal cords taken from patients who had died of the disease have, on a rough examination, been thought to be healthy, does not negative the theory of nervous origin.

6. *On Unique Anatomical Appearance in General Paralysis.* W. H. DEWITT, M.D. (*Cincin. Lancet and Obs.*, April, 1876.)

The history of this case offered nothing unusual for a case of general paralysis of the insane. Death occurred in about a year from the beginning of the disorder. During the early months there was the usual exaltation and vast "intellectual pretensions," with great irritability of temper. The temperature "was above the normal during the whole course of the disease."

The dura mater was found much thinner than normal, and presented at points a cribriform appearance. Between the visceral and parietal layers of the arachnoid, there was a false membrane that enveloped the entire brain structure. "It was but slightly adherent, and easily detached without destroying its texture." The arachnoid was opaque, and the pia mater was only slightly congested. The convolutions were flattened and the cortical substance was thin.

Dr. D. believed the thinning of the dura mater was due to the pressure by the false membrane, and that the latter was an appearance not previously reported.

7. *Intussusception in an Infant—Recovery.* F. L. HAYNES, M.D. (*Phila. Med. Times*, March 18, 1876.)

The patient was seven months old, and had always been constipated. On symptoms of intestinal disturbance, castor oil was given, which operated well. Diarrhœa followed—in two days streaks of blood characterized it. The next day there were more blood, mucus and tenesmus; injections of starch and laudanum, and stoppage of diarrhœa, with beginning of vomiting of greenish fluid. The day following came stercoraceous vomiting, tympanitis, dullness on percussion, and tumefaction over descending colon, with great prostration. A tumor could be felt by the finger in the rectum, a soft, velvety mass filling the whole space, and having an oblong orifice in the centre. The child was suspended by his heels, the tube of a stomach pump was pressed far into the rectum, and water forced in by means of a Davidson syringe. After repeated attempts no good was accomplished. Later in the day another attempt was made in the same way, when the tumor disappeared. The child now made a slow recovery. Flatus was at once evacuated by passing a tube into the rectum.

8. *Intra-Cranial Aneurism—Recovery Under Large Doses of Iodide of Potassium.* WM. E. HUMBLE, M.D. (*Lancet*, March, 1876.)

This is a case previously reported of an aneurism in the cavernous sinus. For seven and one-half months the bruit was so distinct that the patient

constantly heard it, and was much annoyed by it. During five months Dr. H. was able to hear it with the stethoscope. Three and one-half months after the first symptoms appeared, the case was put upon the regular use of the iodide. Most of the time thirty-six grains were taken daily. The general health during the four months of the administration of the drug continually improved. At the end of this time the bruit suddenly stopped. The patient had some neuralgia and other unpleasant symptoms of lesser moment, but at the end of five weeks there had been no return of the bruit, and the aneurism appeared to be cured.

9. *Paracentesis of the Pericardium—Recovery.* DR. BURDER. (*Lancet*, March, 1876.)

A carpenter, sixty years old, had had, forty years before, and again two years later, two attacks of rheumatic fever. Subsequently, and until about Christmas, 1874, his health was good. At the last-named date he was attacked again with rheumatism, which kept him in bed a week. In April, 1875, after having had a cough for some days, his feet began to swell.

He was found, April 26th, with general anasarca, shortness of breath and feeble pulse. The heart's action was rapid, irregular, with an indistinct systolic bruit. Two days later he was apparently moribund. The signs indicating considerable fluid in the pericardium, he was aspirated, and forty-two ounces of the material—pale, straw-colored—removed. The needle was inserted between the 5th and sixth ribs, and one inch to the right of the nipple. Toward the close of the operation the apex of the heart was felt to strike the needle once or twice, but it ceased on placing the needle more horizontally. The patient was easier immediately after the operation; in a few hours he was very much easier. Recovery resulted.

10. *The Relation of the Teeth to Disturbances of the Nervous System.* (*The Dental Register*, March, 1876.)

The following cases are reported :

A woman, unmarried, twenty-five years old, healthy, and with teeth better than the average, had at times, for months, paralysis of the left arm. After receiving a variety of treatment without avail, her teeth were examined by a dentist, when the nerve of one of the wisdom teeth was found to be bare. The tooth was extracted, when the palsy was cured.

A woman of good health, aged twenty years, was married; soon after which she had epilepsy. She had treatment, but grew worse for three years, when, on advice, she had all her diseased teeth extracted; this included all except the eight front ones of the lower jaw. She took tonics and was well.

A married woman of twenty-five, had never borne children. Her teeth and other appendages were perfect. She had toothache regularly at her menstrual periods.

III. OBSTETRICS.

1. *Fœtal Death before the Termination of Pregnancy, from a Knot in the Umbilical Cord.* CANIVET. (*Le Progrès Méd.*, No. 6.)

A woman in the 8th month of her fifth pregnancy could not walk by reason of extensive abdominal enlargement. Delivery occurred at term of a first fœtus (female) dead, and presenting by the summit, with spontaneous rupture of the bag of waters. Soon after a new pouch of waters presented, ruptured, and was followed by the expulsion of a normal living child.

The first infant was so macerated that the epidermis was readily detached from the dorsum. The belly was retracted, but there was no appreciable lesion; and in height and volume it corresponded to the living child.

At ten centimeters from the umbilicus a knot was forcibly tied in the cord which was 95 centimeters in length, and wound three times about the neck of the fœtus. The portion of the cord between the neck and the umbilicus was red and congested, while that extending from the knot to the placenta was, in color and appearance, quite normal. The knot itself was closely tied and exhibited a distinct coagulation of blood in the umbilical vessels at that point. The cord was slender, but the placenta normal.

The interest in this case lay in the death of the fœtus, which, judging from the maceration, had occurred several days before birth. The majority of authors have decided that those knots are never sufficiently constricted to interfere with the circulation and induce the death of the fœtus. (Mauriceau, Beaudelocque, Cazeaux, Tarnier.) One single case, (reported by Voetz) has been published in the *Gazette des Hôpitaux*, 1842.

Guéniot stated that these knots are rarely drawn sufficiently tight to interfere with the circulation and produce dangerous effects upon the fœtus. This results from the material with which the cord is smeared, and which prevents its constriction so perfectly that after delivery, if it be knotted artificially, it will be found difficult to tie it tightly unless this smegma be first removed. Besides, the incessant motion of the arterial fluid tends to prevent the accident by loosening the knot. In this case death was probably determined by the three turns about the neck which increased the vascular disturbance.

2. *Tubal Pregnancy.* ALBU. (*Berlin Klin. Wochenschr.*, Feb., 1876.)

A woman was seized with vertigo, malaise, diarrhœa, and violent hypogastric pain, followed by repeated syncope. Up to date her health had been perfect. She had not menstruated for two months. The abdomen and the uterus were exquisitely sensitive to the touch. As she was living in concubinage, poisoning was thought to be the cause. Shortly after the visit of her physician, she went into collapse and died.

The autopsy revealed rupture of the left fallopian tube, from which an hæmorrhage had occurred. The membrane of the ovum was also torn, the latter having been fecundated and increased to the size of a nut.

Albu remarked that Maschka had already called attention to the symptoms of poisoning exhibited in cases of pregnancy of the tube, viz: abdominal pain, extreme feebleness, nausea, pallor of the surface, smallness of the pulse, collapse, cramps, convulsions and sudden death.

Heim, in his thesis on pregnancies of the fallopian tube, gives the details of 32 cases observed by himself.

3. *Uterine Mucous Membrane Expelled without Metrorrhagia—Probable Extra-uterine Pregnancy.* HUTINEL. (*Le Progrès Méd.*, No. 7.)

A woman, 25 years of age, had severe pelvi-peritonitis after her second confinement. She was well for two months when she had menstrual suppression. She then experienced some pain, her limbs became heavy. She grew larger, and had dyspepsia without vomiting. These troubles were temporarily relieved when she had violent abdominal pain, syncope, bilious vomiting, abdominal distension, and an exsanguine facies without apparent loss of blood. Acute generalized peritonitis followed.

On July 26, her skin was of a waxy yellow hue, and the conjunctivæ, gums and lips were almost bloodless. The belly was equally distended in all directions and so sensitive that she could not endure the contact of the hand. Some greenish vomiting; pulse, 120; temp. 40° C.

On July 28, there was relief of symptoms and a triangular membrane was removed from the vagina, half a centimetre thick, villous upon each face, slightly mamelonnated, but smooth, and presenting pitted depressions which could be recognized as the glandular orifices of a section of uterine mucous membrane—a recognition confirmed by the microscope.

The distinct symptoms of internal hæmorrhage preceding the peritonitis and the expulsion of the membrane without hæmorrhage externally, pointed to extra-uterine pregnancy.

4. *Hydatids of the Womb.* McCLELLAND. (*Rich. & Lou. Med. Jour.*, Feb.)

In the *Richmond and Louisville Med. Journal*, Feb., Dr. M. A. McClelland has reported an instance of this rare disease. The patient, a primipara, aged 34 years, thought herself five months advanced in pregnancy. Had been flowing for several days when first seen; paroxysmal pains; os somewhat opened, through which an uneven mass was felt. The expulsion of the fœtus was soon followed by that of the diseased placenta which was made up of cysts filled with clear serum and varying in size from that of a mustard seed to that of a Concord grape. The fœtus was well formed, some ten inches in length, and gasped a number of times.

5. *Rupture of Uterus.* FULLER. (*Cin. Lan. & Obs.*, March.)

Dr. S. W. Fuller reports this case in *Cin. Lancet & Obs.*, March. The patient was a stout woman with pendulous belly, who was already the

mother of five children. When first seen the os was well dilated and the membranes ruptured. Six hours subsequently the head was just entering the strait in first position of vertex, when suddenly the pains ceased, the patient complained of pain in the region of the fundus uteri, and grew very restless. An attempt to apply forceps failed, and turning was decided upon. The lower extremities of the fœtus were found quite in the abdominal cavity, but version and delivery were not difficult. The hand was subsequently passed through a very extensive rupture of the uterus into the peritoneal cavity; no clots were found; the placenta was lying loose within the uterus; the organs were contracted. The injury was followed by high fever, but at the end of seven weeks the patient was able to sit up.

Rather more than two years after this accident which has been described, the patient safely gave birth to a six-months fœtus; the placenta being everywhere firmly adherent.

6. *Presentation of Four Hands.* STIEBELING. (*N. Y. Med. Journal.*)

Dr. Stiebeling was called to the case; the membranes were intact; os well dilated. The presentation of hands could be distinctly made out, and it was decided to perform version; upon rupturing the membranes, two hands were met, and in going higher two other hands were encountered, and then two heads. A foot was pulled down and the delivery of a boy soon followed; the second fœtus, also a male, was soon delivered in the same manner. Mother and children did well.

7. *Hæmorrhage from Abortion.* PALLAN. (*N. Y. Med. Rec.*, Feb. 12.)

Concerning hæmorrhage from abortion, Dr. Pallen said, before the New York Academy of Medicine, (*N. Y. Med. Rec.*, Feb. 12), that he always dilated the cervix with his hand or other means, and removed the fœtus and placenta at once, as a guard against hæmorrhage and septic infection.

In the discussion of Dr. Pallen's remarks, Dr. Mundé said that he was of the opinion that no harm would follow if the placenta was left in the uterus for a number of days; it would, as a rule, soon be found in the vagina.

Dr. Hubbard said that for twenty years he had left the placenta of abortion entirely alone. If hæmorrhage is severe, he uses a tampon. In the great majority of cases, the placenta will be found loose in the vagina at the end of the second day. He regards this much safer practice than forcibly opening the cervix uteri for the removal of the placenta.

8. *Induced Lactation.* GILBERT. (*Louisv. Med. News*, March 11.)

An instance of this is reported by Dr. Gilbert, (*Louisville Medical News*, March 11). The subject, a married and childless woman, took an orphan child three weeks old. Artificial feeding disagreeing with the infant, the woman, whose desire for children was strong, was induced to allow the

infant to take her nipple. A poultice of leaves from the castor oil plant was applied to the breasts, and teaspoonful-doses of castor oil were given every three hours. At the end of twenty-four hours, a peculiar sensation was experienced in the breasts, and in three days the function of lactation was well established. The infant thrived well.

9. *Medico-legal Evidence of Independent Life in a New Born Child.*

In a little pamphlet with this title, Dr. Gaston (Montgomery, Ala.) has called attention to the fact that the function of respiration alone is evidence of extra-uterine life; and that the fact that the foetal heart has pulsated after birth is not sufficient evidence in a medico-legal point of view.

10. *Gestation Extending Three Hundred and Six Days.*

Dr. Graves reports the case in *Boston Med. & Surg. Journal*, March 30. The subject, seventeen years old, was the wife of a sea-faring man. Three days before the husband sailed, the woman ceased to menstruate; sexual intercourse was had each of the two nights following. Three weeks after her husband left her, she had nausea, and Dr. Graves thought her pregnant. At the expiration of nine months, the Doctor was asked to hold himself in readiness to attend upon the woman as she was having some pain. During the night of the three hundred and sixth day from the departure of her husband the labor really began, and continued four hours; the woman giving birth to a healthy male child weighing ten and one-half pounds.

11 *The Physiological Cause of Muscular Contraction of the Gravid Uterus.*

Dr. Thomas Mays, (*N. Y. Med. Jour.*, Feb.), in an interesting paper on this subject advances the idea that it is a condition of bloodlessness of the uterus during the last days of pregnancy which induces the contractions of the organ during that period, these contractions growing more forcible until labor has begun. He finds the explanation of this deficient blood supply to the uterus in the encroachment which the heavy gravid uterus makes upon the uterine supply vessels, by which the circulation through them is impeded. It is a little significant that this encroachment is greatest as term is approached, and coincident with the beginning of uterine contractions, when the lower part of the body of the uterus begins to contribute most to the development of the uterine cavity.

IV. THERAPEUTICS.

1. *Whooping Cough Treated by Complete Etherization.* DR. S. D. POWELL.
(*Ex.*)

At the last meeting of the Neurological Society, Dr. P. advocated the above cure for pertussis. The etherization must be continued forty or fifty minutes. He related about six cases in which this procedure had proved successful, though in one or two cases the anæsthetic had to be given a second time. He hit upon this method of treatment accidentally from etherizing a child who had pertussis at the time, for the reduction of a fracture.

2. *Tooth Ache.* C. A. GUILD. (*Clinic.*)

Equal parts of collodion and carbolic acid, form a stiff jelly, which may be applied with a pine stick to the cavity of an aching tooth. The pain will be relieved almost instantly if it depend on an exposed nerve.

3. *Salicylic Acid for Articular Rheumatism.* DR. STRICKER. (*Berl. Klin. Wochenschr.*; *Allg. Med. Central. Ztg.*, 19, 1876.)

Since Dr. Stricker first advocated the internal exhibition of the salicycic acid for rheumatism, he has received a great many communications from professional friends confirming the good effect of the remedy on the disease. The success depends, however, very much on the purity of the acid. He puts his experience down in the following sentences:

1. The salicylic acid seems to be a prompt and reliable remedy for fresh cases of genuine articular rheumatism.

2. It is not injurious to the human organism if given in hourly doses of 7 to 15 grains (0.5 to 1.0 gramme.)

3. Such doses can be continued longer in young and robust persons than in old and feeble ones.

4. It produces the signs of intoxication sooner with the latter than with the former.

5. This intoxication shows various grades; tinnitus aurium, dullness of hearing, and perspiration, are the ordinary signs, and yet they do not contra-indicate the further use of the acid.

6. To prevent a recidive the acid should be continued in small doses (20 to 40 grains pro die, for at least one week longer.

7. In chronic cases of articular rheumatism its efficiency is doubtful, and in so-called gonorrhœic rheumatism it is very improbable.

4. *Opium and its Antidote.* DR. J. H. STEARNS. (*Detroit Review of Medicine*, April, 1876)

It is admitted that opium, in its several forms, is the great antidote for pain, and in prescribing it the dose should be regulated by the extent and

severity of the pain, modified by the fact as to whether the patient's system has recently been accustomed to its use.

The custom of giving opium or morphine for mere sleeplessness can not be too highly reprehended, or to give it where the pains are fugitive or uncertain of duration, because should the pain disappear, the full force of the drug would be expended on the brain, with perhaps dangerous or fatal results.

As to antidotes for an over-dose of opium, the brain of the profession has been exercised to an alarming extent. I believe that atropia is now the fashionable thing to exhibit hypodermically.

Realizing that opium is the antidote for pain, and that otherwise deadly doses are carried off with impunity where the pain is excessive, we have only to reverse the proposition, and the question is solved, for we have pain as the antidote for opium. Finding the patient laboring under an over-dose of any opiate, proceed at once to inflict upon him a pain that will be persistent and continued at your pleasure. Remembering that the most excruciating torture is experienced by pressure upon terminal branches of the nerves, the most convenient way will be to apply pressure upon the ends of the thumbs and fingers. This can be done by using a small hand vice, or even the ordinary spring clothes-pins will answer every purpose, for it is astonishing to experience the amount of pain one of these little instruments will inflict with its persistent grip.

The inquisition found the thumb-screw the most effectual machine for torture that could be advised. Ephemeral and transient pains will be of little good; it is the steady and continued agony that accomplishes the work.

Accounts of cases treated on the theory indicated would be of little use, unless it commends itself to the judgment, and this paper is respectfully submitted to the readers of the *Review*, trusting that it will receive a careful examination, in the light of previous knowledge and experience with this powerful drug.

5. *Grindelia Robusta*—Therapeutic Action and Chemical Analysis. C. J. RADEMAKER, M.D. (*Louisville Med. News*)

I have used this medicine in several cases of chronic pneumonia, bronchitis, and in asthmatic troubles, whether depending on cardiac lesions or structural disease of the lungs or bronchial tubes, and my patients were invariably benefited by it to some extent.

Mrs. F., aged 48, had chronic pneumonia of about two years' duration, with considerable purulent expectoration. Physical examination of the chest revealed flatness of the entire left lung. She suffered with considerable dyspnoea, and had used all the expectorants, oils, anodynes, tonics, alteratives and alkalies in existence, with little benefit. She was given one teaspoonful of the fluid extract of *grindelia robusta* every two or three hours, or more frequently when her cough was troublesome. Under this treatment the cough was less severe, the expectoration diminished, and her appetite and general health improved so that she is better now than she has been for a year.

CASE II.—Mrs. R. had pneumonia about eighteen months ago. She has flatness of the right lung and partial consolidation at the base of the left remaining. I treated her in the acute stage of pneumonia and am treating her now. She had many remedies given her without any benefit. I placed her under the fluid extract of *grindelia robusta*, giving her a teaspoonful every two hours. She was put on this treatment about three weeks ago, and as long as she has been under it she sleeps better, has less cough and dyspnoea, and is in all respects much better than she has been for nine months.

CASE III.—Has cardiac enlargement, with valvular lesions and chronic bronchitis. This patient formerly derived much benefit from the fluid extract of *gelsemium* and extract *belladonna*, but lately could not be so relieved. He was placed under the *grindelia*. In this case, as in the former, the patient was relieved in a few days. His heart trouble of course remained the same, but his bronchitis was seemingly entirely cured.

I have used this medicine also in acute attacks of pneumonia and bronchitis, but derived very little benefit from it. I think it is indicated in the chronic stages only.

Chemical Analysis.—One pound of *herba grindelia robusta* was exhausted with a hydro-alcoholic menstruum by percolation, and the percolate reduced by evaporation to about eight fluid ounces. The remaining liquid was treated with caustic alkali in excess, and then agitated with several times its volume of ether, the ether separated and allowed to evaporate. The oleoresinous mass thus obtained had the physical appearance of gum tolu, in odor resembling gum turpentine. By dry distillation it yielded a volatile oil, the odor of which resembled oil of turpentine. Part of the oleoresin thus obtained was treated with dilute nitric acid and filtered, the filtrate decomposed with caustic potash and agitated with ether, the ether separated and allowed to evaporate spontaneously. A solution of the mass thus obtained had a distinct alkaline reaction, and under the microscope showed well formed prismatic crystals.

The alkaline fluid from which the base and oleoresin had been extracted by means of ether, was now treated with dilute sulphuric acid, in order to obtain the organic acid present. Sulphuric acid being added until the solution had a distinct acid reaction, the acid solution was then agitated with several times its volume of ether, the ether separated and allowed to evaporate. The residue was then exhausted with distilled water, in order to separate the acid from any resinous matter that had been extracted with it by ether. The aqueous solution thus obtained had a distinct acid reaction, completely neutralizing alkalies and forming salts. The solution of these salts had a yellow color. Under the microscope the acid showed well formed acicular crystals.

Time not permitting me to make a further investigation of the acid and base of this drug at present, at some future time I will make a further chemical examination, and also upon what part of the drug its physiological and active properties depend.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

CYCLOPEDIA OF THE PRACTICE OF MEDICINE. Edited by *Dr. H. Von Ziemssen*, Professor of Clinical Medicine in Munich, Bavaria. Vol. III. Chronic Infectious Diseases, by *Prof. Christian Bäumlér*, of Erlangen; *Prof. Arnold Heller*, of Kiel; and *Prof. Otto Bollinger*, of Munich. Translated by Arthur D. Nichols, M.D., of Boston, Wm. Ashbridge, M.D., of Philadelphia, James G. Hyndman, M.D., of Cincinnati, and Edward B. Bronson, M.D., and Edward L. Keyes, M.D., of New York. Albert H. Buck, M.D., of New York, Editor of American Edition; pp. 672. Wm. Wood & Co. New York. 1875.

LECTURES ON SYPHILIS AND ON SOME FORMS OF LOCAL DISEASE AFFECTING PRINCIPALLY THE ORGANS OF GENERATION. By *Henry Lee*. Professor of Surgery at the Royal College of Surgeons, England, etc. Philadelphia: Henry C. Lea. 1875. Pp. 246.

In this our day, when the literature of every medical subject is rapidly multiplying, there are only two species of books valued highly by the professional reader. One class embraces the cyclopædic works—literally understood. They attempt to traverse the cycle of knowledge, attained or attainable, on the subject of which they treat. An imperfect accomplishment of the orbit detracts from their value, in proportion as the failure occurs at those points where it is particularly necessary that the object in view should be attained.

In a second class of books, less pretentious, the author is absolved from the necessity of carefully collecting the treasures which have been mined by others before him, because of the genuine value of his own contribution. It must be original, either in matter or in mode of presentation, in order to secure success.

The volumes named above belong each to one of these

classes, and judged from the standard suggested, each must be decided to be deficient in the elements which give permanent value to any work.

Over three hundred pages of the Cyclopædia are allotted to Professor Bäumlér's treatise on syphilis—space which should suffice for a condensed review of the literature of the subject. And yet, on many topics which require the most careful elucidation with a comparison of authorities, the details given are meagre in the extreme. Where the author attempts to submit original observations, we do not think the value of the treatise has been greatly enhanced.

Thus, for example, in considering the primary affection in syphilis, twenty-three pages are devoted to the discussion of the doctrines of unity and duality—a discussion in which the ideas of the two schools are very fairly presented—while but four pages are allotted to the description of the primitive lesion itself. Of these, one and one-half pages are taken up in describing the flat papule of inoculation, before the attention is directed to lesions of mucous surfaces. Here the author takes a position in which he stands nearly if not quite alone. He describes "a small, itchy vesicle upon a reddened base, or an erosion, due to the bursting of the vesicle, which could not be distinguished from the erosion resulting from a simple herpetic vesicle, such as often occurs upon the inner layer of the prepuce," as the first thing observed after the period of incubation. Dubuc attracted considerable attention in 1874, when his article on "multiple herpetiform chancres" first appeared in the *Annales de Dermatologie et de Syphiligraphie*, but he did not then claim, nor do we know that others since his writing have claimed, that the vesicle was generally the initial stage of the initial lesion of syphilis. Neither, we think, can it be demonstrated that the superficial erosion, which is the insignificant and most common form of the earliest manifestation of the disease, results from the rupture of a minute vesicle. The smooth, polished, and often pig-

mented surface, of the color of raw ham (Swediaur) which is the first phase of many chancres, does not in any way suggest the little ulcer to be found at the base of a "simple herpetic vesicle." Minute as it is, and apparently insignificant as it is, it is fraught with intense interest to the student of the career of syphilis, and deserves a much more careful description than that accorded to the entire subject, in the volume under consideration. The various modifications of the primary sore, according as it occurs upon the os uteri in woman—so carefully delineated by Fournier—or as there is developed upon and from it the well marked forms of the ulcerating chancre, are not discussed.

The primary lesion, in several parts of the treatise, is denominated the "syphilitic initial sclerosis." There is, no doubt, sufficient confusion in the nomenclature of venereal ulcers to justify the introduction of a new name by which they can be more clearly identified, but that proposed by Bäumlér wants the exactness of a definitive term. "Sclerosis" is a common but not essential feature of a primary syphilitic sore. It is in fact an accident in its development. "A chancre," says Fournier, "is indurated because it is syphilitic, not syphilitic because it is indurated." Induration is true of nineteen out of twenty infecting ulcers, but the twentieth in which it is lacking, demonstrates the fact of this misnomer.

We have referred to the deficiencies of the treatise in this particular instance, merely to indicate one of many subjects whose treatment is eminently unsatisfactory. The subjects of the syphilides, their diagnostic features and treatment, syphilis of the viscera and nervous system, and hereditary syphilis, are loosely handled and imperfectly developed. Nothing, for example, could be more disappointing to a practitioner confronted with his first case of syphilitic iritis, than to consult the single page which Prof. Bäumlér has written under this title, and upon which not one word appears which gives the slightest clue to the treatment which of late years has proved so

conspicuously satisfactory, even when distinct syphilomata have been found upon the pupillary margin.

The latter part of the volume, which treats of infection by mineral poisons, and the diseases from migratory parasites, is well illustrated and supplies a valuable contribution to the literature of a subject which is yet, to a great extent, obscure.

The translation of the whole work has been admirably accomplished, and we can not but wish that one of the translators, at least, who has made for himself an enviable reputation as an author in syphilography, had added some chapters of his own writing. There are some typographical errors which a more careful proof-reading should have corrected, but in the general excellence of the work of the publishers, this volume is quite equal to any of its predecessors.

The Lectures on Syphilis belong to the second of the two classes of books we have described, and the key note of the work is sounded in the very first sentence of the preface: "The principal object of the present work is to illustrate some of Hunter's doctrines which the lapse of time and the dissemination of more recent views have obscured, or caused to be forgotten." This may be a praiseworthy effort, but we think it misdirected, and one not at all promising for the reputation of the author. If Mr. Henry Lee had set himself to study syphilis for its own sake, and with the single view of teaching himself and his fellows the truth respecting it, he would have accomplished vastly more good. As it is, he has looked at chancres through an Hunterian objective—never an achromatic lens, and comparing unfavorably with its rivals of to-day. The profession, the scientific world and the world at large, will ever hold in the highest reverence the name of John Hunter, but they realize the fact that the medical fledgling of 1875 knew more of the truth about syphilis than ever did John Hunter.

Mr. Henry Lee at one time attracted considerable attention by his experimental inoculations with the secretions of inflamed chancres, but we do not find that since then his efforts have contributed in any direction to the advancement of syphilology. The distortion of mental vision produced by his effort to illustrate the doctrines of Hunter has rendered the lectures on syphilis obscure and valueless to the student. The inferences drawn from the cases cited are partly conjectural and partly due to misinterpretation of clinical facts.

"The principal constitutional cause," he says, "which modifies the first appearance of a real syphilitic inoculation, is the existence of what I have, for want of a better term, called the syphilitic fever." We do not know, when we read these lines, whether to account for their apparent disingenuousness by supposing the writer to be exceptionally audacious or ignorant. But the doubt is removed on the very same page (52), where we read further, that the inoculation of common pus will, under ordinary circumstances, not produce a pustule; while "under the influence of this fever" it may give rise to it. Long before these words were penned, the doctrine of the contagiousness of all common pus, with or without fever, had been promulgated by Van Roosbroeck and demonstrated by Pick, Chauveau and others. The professor of surgery at the Royal College of Surgeons, ignorant of these facts or ignoring them (the culpability being in either case the same) has thus produced a work in which an essential error has marred almost every explanation, detail and didactic statement. It is full of crudities, and misconceptions—all resulting from a single source—the egregious folly of looking at nature in health and disease not in order to observe the truth, but to obtain some little modicum of verity which will substantiate a preconceived opinion.

We know of no value attaching to these lectures beyond the addition they furnish to the clinical material of syphilitic cases.

EXTRA-UTERINE PREGNANCY; its Causes, Species, Pathological Anatomy, Clinical History, Diagnosis, Prognosis, and Treatment. By *John S. Parry, M.D.*, Obstetrician to the Philadelphia Hospital, etc., etc. 276 pages. Philadelphia: Henry C. Lea. 1876.

This very excellent book is based upon an analysis of five hundred cases collected from various sources, and, for a work of its size, shows immense research, and, as far as we can judge, perfect fairness in giving credit to the multitude of authors to which it refers. After confessing that in many cases the cause of this distressing difficulty cannot be determined, the author places *previous pelvic disease* at the head of the list, as being the probable cause in many instances. Inaptitude to conception, hernia of some portion of the internal genital organs, ordinary uterine displacements, and tumors, are also mentioned as causes. The particulars of two remarkable cases are given, where, after surgical operations, openings having been made through the uteri, the fertilized ova escaped into the abdominal cavity, and pregnancy took place.

Our author objects to the "minute anatomico-pathological" classification of Dezeimeris and others, and produces one of his own. He believes that there are three species of extra-uterine pregnancy, viz., tubal, ovarian, and ventral or abdominal; each species being divided into several varieties. The three recorded cases of supposed vaginal pregnancies are carefully reviewed, and the paragraph closes with the following sentence:

"It may, therefore, be concluded that we have no reliable clinical evidence that vaginal pregnancy is possible, and that there are good reasons for believing that it can not occur."—p. 49.

The *pathological changes* (1) during the early stage, (2) during the later months of gestation, and (3) after its close, are carefully considered, occupying about forty pages of the book. It seems to be well established that in these erratic pregnancies, the uterus undergoes changes nearly similar to those taking place when the

pregnancy is normal. In regard to the formation and discharge of the decidua, three propositions are given, which may be epitomized as follows: "A decidua is always formed in extra-uterine pregnancy in the uterine cavity. It is rarely retained until completed gestation, being more frequently thrown off during the early months, with symptoms of miscarriage. Its absence, when death takes place from rupture of the cyst, is no proof that it has not been formed—it has probably been previously expelled."—p. 72.

The *symptoms* of extra-uterine pregnancy are studied under three divisions, the author giving particular importance to the signs of the first period. This stage includes the first months of pregnancy, previous to the time when the sounds of the foetal heart can be detected, and is characterized by the patient supposing herself to be pregnant, and by hypogastric, colicky pains, often so extremely violent as to produce syncope, with menorrhagia.

The symptoms during the second period, and the phenomena present after the end of the normal time of gestation, are carefully considered.

The various theories as to the cause of pains, somewhat like if not identical with those of labor at the end of normal pregnancy, are also discussed. Against the theory of Powers, proposed in 1819, that of Brown-Sequard, in 1855, of King, of Washington, D.C., in 1871, and of Clarke, of Oswego, N. Y., in 1872, our author sees "insuperable objections," and rejects them all. The cause of labor pains at the close of extra-uterine gestation is not accurately known. The theories have been numerous. There is, however, now some clinical evidence (more being necessary to establish it as absolutely certain), which makes it probable that these pains are due to contractions of the uterus.

The *termination* of an extra-uterine pregnancy, we are assured by the author, is not without interest, "whether viewed with regard to the marvellous circumstances

under which life is sometimes preserved, or the frightful rapidity with which it is destroyed in other cases." The subject is considered under the following heads: (1) Rupture of the Cyst; (2) Changes which follow Retention of the Fœtus for a Long Period; and (3) Discharge of the Child through the Bowel, Bladder, Vagina, or Abdominal Wall.

The *mortality* is frightful. In the 500 recorded cases 336 died—a death rate of 67.20 per cent.

The *differential diagnosis* is considered at length, and, in view of the fact that many of our most eminent obstetricians have been misled in their examination of these cases, it is a subject that should receive our most diligent study. Extra-uterine pregnancy is liable to occur in the practice of every medical gentleman, and the careful study of 500 recorded cases by any one cannot fail to be of great service.

The consideration of *the treatment* occupies seventy-five pages of the volume, and, in addition to palliative measures, the comparative value of the following methods, during the first period, are discussed: 1, Destruction of the ovum through the system of the mother; 2, Extirpation of the fœtal sac; 3, Puncture of the fœtal cyst; 4, Removal of the embryo by section of the vagina with the galvanic cautery; 5, Galvanism and electricity; 5, The injection of narcotic substances into the cyst; 7, Compression of the tumor.

The last pages of the book are devoted to a consideration of the operation of gastrotomy after rupture of the cyst, which the author not only believes justifiable, but says it is "simply criminal to sit idly by and see a woman die from rupture of an extra-uterine fœtal cyst without attempting to save her."

In a careful perusal of the volume we have noticed but a single typographical error.

In conclusion, we must say that we are proud of the book. It is a valuable addition to American medical literature. We honor the man who has so patiently

wrought out from such a vast amount of material so valuable a work, which should be in the possession of and read by every practitioner.

C. W. E.

A SYNOPSIS OF THE SYMPTOMS OF GOUT AT THE HEART. Also, a few Practical Remarks on Epilepsy, Nervousness, and other Kindred Diseases in relation thereto. By *Eldridge Spratt*.

We have just finished a perusal of this book, and are justly amazed at its contents. At first we were inclined to believe it written by some clever fellow as a satire upon medicine, something after the manner of Le Sage, Molière *et al.*; but a more careful study, and the fact of its having reached twelve editions, lead us into a more serious train of thought, and incline us to give it a more thorough inspection. It seems to us hardly a credible fact that, at this age of medicine, and with such advances as have been made in pathology, physiology, and kindred matters, that a physician could be found—and in England too—to produce such a trashy work, with such a lack of true medical knowledge. It speaks badly for the professional *status* of its readers, and we can only hope that his confrères (as he terms them), Sieveking, Tanner, Garrod, Fuller, the late Drs. Skey, Todd, Wardrop and others, were physicians of too kind hearts, and too indulgent to wound his sensibilities by advising its suppression, before the issue of its second edition.

There is not an original idea in the whole, and it is a work of surprises and disappointments, being only relieved by the extracts from good writers, and the anatomical plate in the beginning. We do not understand how so respectable a firm as J. B. Lippincott & Co. could have been persuaded into publishing such a muddy and weak affair, giving, as it were, a *quasi* endorsement of its demerits, and for which many a professional man will not be at all thankful.

F. B. N.

BOOKS RECEIVED.

- CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by *Von Ziemssen*.
Vol. IV—Diseases of the Respiratory Organs.
- DISEASES OF THE NOSE AND ITS ACCESSORY CAVITIES. By *W. Spencer Watson, F.R.C.S., Eng.*, B. M. London.
- SAINT BARTHOLOMEW'S HOSPITAL REPORTS. Vol. XI. Edited by *James Andrews, M.D.*, and *Thomas Smith, F.R.C.S.*
- SURGERY OF THE ARTERIES. By *C. F. Moundor*, Surgeon, etc.
- THE STUDENT'S GUIDE TO THE PRACTICE OF MIDWIFERY. By *D. Lloyd Roberts, M.D., M.R.C.P.* London.
- A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By *William A. Hammond, M.D., etc.* Sixth edition.
- MORTUARY EXPERIENCE OF THE MUTUAL LIFE INS. Co., of New York. From 1843 to 1874.
- A MANUAL OF DISEASES OF THE EYE. By *C. Macnamara, F.C.M., etc.*
- CLINICAL LECTURES ON DISEASES OF THE HEART AND AORTA. By *Geo. Wm. Balfour, M.D., St. And., F.R.C.P., Ed., etc.*

PAMPHLETS RECEIVED.

- SPECIMEN FASCICULUS OF A CATALOGUE OF THE NATIONAL MEDICAL LIBRARY. Compiled by *Dr. J. S. Billings*, Asst. Surgeon, U. S. A.
- HISTORICAL SKETCH OF UNION COLLEGE, Washington: Government Printing Office. 1876.

Medical News and Items.

ILLINOIS STATE MEDICAL SOCIETY. — The Twenty-sixth Annual Meeting of this Society will be held in Urbana, Champaign County, May 16th, at 10 o'clock A. M.

AMERICAN MEDICAL ASSOCIATION.—The 27th Annual Session will be held in the city of Philadelphia, Pa., on Tuesday, June 6, 1876, at 11 A.M.

“The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by *representation in their respective State Societies*, and from the Medical Department of the Army and Navy of the United States.”

“Each State, County, and District Medical Society entitled to representation shall have the privilege of send-

ing to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number ; *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

 Secretaries of Medical Societies as above designated are earnestly requested to forward, *at once*, lists of their delegates, in order that the Committee of Arrangements may be enabled to form some idea of the number likely to be present.

SECTIONS.

"The chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections. * * *"—BY-LAWS, Art. II., Sect. 4.

Practice of Medicine, Materia Medica, and Physiology : Dr. Francis G. Smith, Philadelphia, Pa., Chairman ; Dr. B. A. Vaughan, Columbus, Miss., Secretary. Committee appointed to report to this Section—On Clinical Observations : Dr. N. S. Davis, Ill., Chairman ; Dr. H. A. Johnson, Ill. ; Dr. J. B. Johnson, Mo.

Obstetrics and Diseases of Women and Children : Dr. S. C. Busey, Washington, D. C., Chairman ; Dr. Robert Battey, Atlanta, Ga., Secretary. Committee appointed to report to this Section—On the Connection of the Hepatic Circulation with Uterine Hyperæmias, Fluxions, and Inflammations : Dr. L. F. Warner, Mass.

Surgery and Anatomy : Dr. Alonzo Garcelon, Lewiston, Me., Chairman ; Dr. E. T. Easley, Dallas, Texas, Secretary.

Medical Jurisprudence, Chemistry, and Psychology : Dr. E. Lloyd Howard, Baltimore, Md., Chairman ; Dr. V. L. Hurlbut, Chicago, Ill., Secretary.

State Medicine and Public Hygiene : Dr. R. C. Kedzie, Lansing, Mich. Chairman ; Dr. Ezra M. Hunt, Metuchen, N. J., Secretary. Committee to report to this Section—On Form of Bill to Establish a National Department of Public Health at Washington : Dr. H. B. Baker, Mich., Chairman ; Dr. H. A. Johnson, Ill. ; Dr. J. M. Toner, D. C.

 "Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty, of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his section, to determine the time and order of their presentation, and give due notice of the same. * * *"—BY-LAWS, Art. II, Sect. 5.

The following Committees are expected to report : On Mechanism of Accommodation of the Eye : Dr. D. S. Reynolds, Ky., Chairman.

On New Remedies : Dr. Austin Flint, Jr., N. Y., Chairman.

On the Medical and Surgical Uses of the Aspirator : Dr. E. S. Gaillard, Ky., Chairman.

On Influence of Climate on Pulmonary Diseases in Minnesota : Dr. Franklin Staples, Minn., Chairman.

On the same in Colorado : Dr. Chas. Denison, Col., Chairman.

On the same in Florida : Dr. E. T. Sabal, Fla., Chairman.

On Proper Legislation to Prevent the Spread of Syphilis : Dr. Samuel D. Gross, Pa., Chairman.

On Prize Essays : Dr. Samuel D. Gross, Pa., Chairman.

On Necrology : Dr. S. C. Chew, Md., Chairman.

On Rank of Medical Corps of the Army : Dr. H. A. Johnson, Ill., Chairman.

W. B. ATKINSON, *Permanent Sec'y.*

PHILADELPHIA, 1400 Pine St., S. W. cor. Broad.

CHICAGO MEDICAL PRESS ASSOCIATION.—The Directors wish to express thanks for the following books received. From Dr. Philip Adolphus, Chicago, 44 vols., as follows :

Cooper's Lectures.
Howshep on the Rectum.
Bell on Ulcers.
Cooper's Surgery, 2 vols.
Strohmeyer & Eshmarch on Gun Injuries.
Guthrie, Military Surgery.
Carmichael on Venereal.
Cazenave on the Skin.
Bateman, Synopsis of Venereal Diseases.
Travers on Irritation.
Rogerson on Inflammation.
Andral on Chest Diseases.
Andral, Diseases of Abdomen.
Abercrombie on the Brain.
Abercrombie on the Stomach.
Budd on the Liver.
Armstrong on Typhus Fever.
Ayre on Dropsy.
Armstrong on Fevers.
Bichat on the Encephalon.
Bichat on Pathological Anatomy.

Andral on the Blood in Disease.
Philip on Acute and Chronic Diseases.
Beclard's General Anatomy.
Bell's Anatomy, 3 vols.
Parson's Anatomical Preparations.
Brechard's Physiological Researches.
Broussais' Physiology.
Wilson on Vital Functions.
Blumenbach's Physiology.
Richenad's Physiology.
Beain's Therapeutics.
Paris' Pharmacologia.
Ellis' Medical Formulary.
Paris on Diet.
Combe on Infancy.
Althaus' Medical Electricity.
Brand and Taylor's Chemistry.
Brodie on Joints.
Prout on Calculus.
Report of Board of Health of Chicago for 1867-9.

Also the following books and pamphlets from Dr. Hamill:

Principal Diseases of the Valley of North America. 1849. D. Drake, M.D. 1 vol.
Second Series Principal Diseases of the Valley of North America. 1850. D. Drake, M.D. 1 vol.
American Journal Medical Sciences for 1844-5. 4 vols. in 2.
Principles of Pathology and Practical Physic. By John Mackintosh. Edition 1837. 2 vols.
Bell and Stokes. 10 vols. Gooch on Females. 1832. 1 vol.

- Art of Preventing Disease and Restoring Health. By Geo. Wallis, M.D., S.M.S. 1794. 1 vol.
 Western Journal Medical Science for 1834-5. Transactions American Medical Association for those years. 1 vol.
 Combe's System of Phrenology. 1 vol.
 Medical and Surgical History of the War of the Rebellion: Surgeon Barnes' Report. 1870. 2 vols.
 Cholera Epidemic of 1873 in the United States. J. M. Woodworth, M.D. 1 vol.
 Circular of War Department by Surgeon Barnes. 1870. 1 vol.
 Statistics—Population. 1870. 1 vol.
 Mortuary Statistics. 1860. 1 vol.
 Population Statistics. 1860. 1 vol.
 Vital Statistics. 1870. 1 vol.
 Population Statistics. 1870. 1 vol.
 Wister's Anatomy. 1835. 2 vols.
 Library of Practical Medicine. 1832. 1 vol.
 Thompson's Conspectus. 1846. 1 vol.

PAMPHLETS.

- Chicago Medical Journal for 1868-9. 2 vols.
 Medical Examiner for 1868-9-70-71-72-73-74-75.
 Transactions of Illinois State Med. Society for 1860-64-67-68-69-70-71-74.
 And sundry Medical Journals.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, May 1 and 15—Chicago Med. Society, regular meetings at the Washingtonian Home, 8 P. M.

Mondays, May 8 and 22—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P. M.—Prof. Holmes.

At Central Dispensary (239 W. Van Buren St.), 2 P. M., *Gynecological*—Dr. Adolphus; 3 P. M., *Medical*—Dr. Bridge.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

TUESDAYS. SOCIETIES.

Tuesday, May 9—Academy of Sciences, regular meeting, 8 P. M. (263 Wabash Ave).

CLINICS. *Every Tuesday.*

At County Hospital, 2 P. M., *Medical*—Prof. Lyman; 3 P. M., *Surgical*—Prof. Freer.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Hollister.

WEDNESDAYS. CLINICS. *Every Wednesday.*

At County Hospital, 2 P. M., *Ophthalmological*—Dr. Montgomery; 3 P. M., *Gynecological*—Prof. Quine.

At Mercy Hospital, 2 P. M., *Surgical*—Prof. Andrews.

At Central Dispensary, 2 P. M., *Medical*—Dr. Bridge.

At St. Luke's Hospital, commencing at 1.30 P. M., *Surgical*—Dr. Owens.

THURSDAYS. CLINICS. *Every Thursday.*

At Central Dispensary, 2 P. M., *Diseases of Chest*—Dr. Ingals.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

FRIDAYS. SOCIETIES.

Friday, May 12—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P. M.

CLINICS. *Every Friday.*

At County Hospital, 2 P. M., *Medical*—Prof. Lyman; 3 P. M., *Surgical*—Prof. Freer.

At Mercy Hospital, 2 P. M., *On Diseases of Eye and Ear*—Prof. Jones.

At Central Dispensary, 2 P. M., *Gynecological*—Dr. Adolphus.

SATURDAYS. CLINICS. *Every Saturday.*

At Rush College, 2 P. M., *Surgical*—Prof. Gunn; 3 P. M., *Diseases of the Brain and Nervous System*—Dr. Hay.

At Chicago College, 2 P. M., *Surgical*—Prof. Andrews; 3 P. M., *Medical*—Prof. Davis.

At all the above Clinics visiting regular practitioners are, we believe, admitted.

THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXIII. — JUNE, 1876. — No. 6.

Original Communications.

TRANSFUSION OF DEFIBRINATED HUMAN BLOOD IN A CASE OF TUBERCULAR PHTHISIS.

BY M. W. WOOD, ASST. SURGEON, U. S. A.

(Read before the Chicago Society of Physicians and Surgeons.)

Although transfusion was known to the ancients, even before the commencement of the Christian era, reports of cases in which this operation has been successfully performed have not been so frequent as to render the subject a trite one, and the following account is submitted, as it may prove of interest to some member of the Society.

Private F— D—, Co. "K," 9th U. S. Infantry, age 27, occupation, previous to enlistment, tinsmith, and whose family history is free from deaths from consumption or allied causes, was admitted into the hospital at this post, Aug. 31st, 1875, as a case of anæmia, and until Nov. 1st the case was so regarded, and accordingly treated by remedies addressed to the hæmotosic function of the body.

At about the latter date, the case came under my charge, and as I suspected the deposit of tubercle, I

made frequent and very careful examinations to detect evidence of its presence, but with a negative result. This patient was also carefully examined at about the same time by two other physicians, neither of whom was able to discover any evidence of a tubercular deposit, although we were all sufficiently satisfied that, sooner or later, tuberculosis would terminate the history of the case. I had at this time no clinical thermometer, which would have undoubtedly strengthened our opinions as to the correctness of the diagnosis. About Nov. 15th, my thermometer arrived, and, as I had expected would be the case, an elevation of temperature, constant, and from 1° F. to 2.5° F., was observed.

About the middle of December, I was hurriedly summoned one evening to the first hæmoptysis, which had, however, been preceded for twenty-four hours by bloody-streaked sputa, but without any marked fluctuation of temperature. From this time onward, despite the assiduous use of every means, therapeutic and hygienic, at my command, he continued to have, every few days, hæmoptyses, varying in quantity from two to eight ounces. These were sometimes preceded by prodromic symptoms, but prophylactic measures seemed unavailing. He had, as his constant companion, a small quantity of finely powdered table salt, with which he was able to arrest the flow of blood in a very short time, and he soon lost all fear of an immediate fatal result. During a period of two weeks he took one fluid drachm of aromatic sulphuric acid daily, but during this period hæmoptyses occurred as frequently and as profusely as before. Dilute phosphoric acid, tannic and gallic acids, and the tincture of the chloride of iron, successively thoroughly tried in full doses, were no more efficacious, and finally it was determined to distress the stomach no longer with astringents, reserving it for nutrition. Hæmoptyses were now no more frequent than before, but these, with the very rapidly advancing, and now very evident tuberculosis, were fast drawing the curtain upon a scene of patient suffering.

He had taken to his bed at last, but little more than a shadow, too weak to walk or stand alone; his appetite had disappeared, and although he fully appreciated the importance of taking nutrition, barely two ounces of milk were taken daily, in addition to the cod-liver oil, of which he has taken about two gallons. He had for some time suffered from dyspnœa, and this now amounted to orthopnœa.

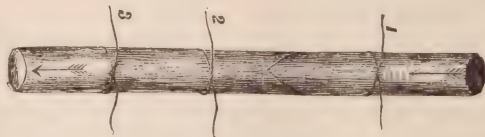
On February 5th, it seemed evident that he could hardly survive forty-eight hours longer, and I determined to give him the benefit of transfusion. Fully conscious of his condition, he readily consented to the operation as offering a hope; worse he could not well be, and live. A young, strong, healthy man having volunteered as donor, a sufficient quantity of blood was drawn, and with an ordinary hard rubber syringe, between three and four ounces were injected, and even this small quantity proved sufficient to overcome the "dead point" as Dalton has happily termed it.

The apparatus used, and the mode of procedure adopted were so simple that I cannot forbear entering into details concerning them. Upon a retort-stand or funnel-holder, and over a spirit-lamp, a small tin basin, partly filled with water, was supported; and in this, separated from its bottom by a small ring of pasteboard, was placed a wedgewood mortar which had been previously measured and graduated to indicate the quantity of blood drawn. The stem and attached scale of an ordinary thermometer were then placed in the bath so that at a glance the temperature might be read. The mortar was first heated to 105° F., and into this seven ounces of *venous* blood were drawn; after which the apparatus was suffered to cool to 100° F., at which temperature it was kept thereafter, during the operation. The blood was carefully defibrinated by a wisp cut from a broom, and afterward constantly stirred, that its temperature might be uniform throughout.

The left median cephalic vein of the patient was

chosen, and exposed for about an inch of its course, by dividing with scissors a transverse fold of skin pinched up between the fingers. About the vein thus exposed, three ligatures were thrown.

As this operation has not, to my knowledge, previously been performed in this manner, I will append a rude diagram.



I will speak of these ligatures as Nos. 1, 2, and 3. No. 1, as will be seen, is toward the distal extremity of the vein, and intended solely to prevent loss of blood by the patient; No. 3, toward the proximal extremity, to guard against the introduction of air; No. 2, nearer 3 than 1, to embrace the contained nozzle of the syringe during the injection. A valvular opening was then made into the vein with scissors, as indicated. The syringe was now filled with blood, its point introduced into the vein nearly to No. 3, and enough of its contents forced out to deprive this portion of vein of any air which it might contain. No. 2 was then tightened about the nozzle, No. 3 loosed, and the syringe emptied. No. 3 was now tightened, No. 2 loosed, and the syringe withdrawn. This process was repeated until nearly four ounces of blood had been injected.

The condition of the patient may be inferred from the brief account of his case already given; suffice it to say, that at 12 M., just before the operation, his temperature was 102.6° F.; pulse, 105; respirations, 34; orthopnœic and in great distress. At 1 P. M., after the operation, these were: temperature, 101.3° F.; pulse, 101; respirations, 27; and now he was breathing much easier; felt quite comfortable, and his lips, ears and nose had assumed a healthier hue. At 4.30 P. M., temperature, 104 F.; pulse, 111; respirations, 22, and he was much easier

than he had been before for some days. From that hour until the present he has continued steadily to improve, and the minute details are unnecessary. The last time that he was weighed prior to the operation (some time in January) he weighed 97 lbs. ; and at the date of writing this, Feb. 25, 1876, he weighed $111\frac{1}{2}$ lbs. This tells the story much better than can words of mine.

The night sweats, which had resisted all measures for their relief, disappeared the third night after the transfusion, and there has been no further hæmoptysis. The appetite has improved, and he now takes with relish, good nutritious food.

The dyspnœa is insignificant, and the destruction of lung tissue seems to have been arrested ; and while I am not sufficiently sanguine to expect his recovery, I think he will soon be able to return to his friends in the East. He gets up in the morning before breakfast time, walks about in the open air, and is looking forward to a complete recovery.

There are several points of interest in connection with this case, which have afforded me themes for thought. Among these, are :

1. The hæmoptyses. I had never before noticed this symptom in such rapidly advancing cases, and had been led to believe that it did not often occur. One eminent writer, Dr. James E. Pollock, in a lecture on this subject, published in the *London Medical Times and Gazette* for July 25th, 1874, says : "Acute tuberculosis has no hæmoptysis."

2. The occurrence of sudden, profuse hæmoptysis upon the receipt of a letter containing unpleasant news ; excited, he burst a blood-vessel.

3. The fact that many of these hæmoptyses, among them the first, occurred while the patient was lying quietly in bed, without any known exciting cause.

4. The occurrence of hæmoptyses without any previous fluctuation of temperature, or other prodrome.

5. The complete cessation of these hæmoptyses since the transfusion is noteworthy, in view of the statements of Tabouré,* who has had considerable experience with this operation. He gives it as his opinion, that the substitution of defibrinated for normal blood sets up a sort of hæmophilia.

6. The yielding of the night sweats as a result of the improved nutrition following the transfusion, while medicines had previously failed.

7. The difference in the number of respirations per minute, before and after the operation, from 34 to 22.

8. The non-occurrence of troublesome symptoms after the operation. No phlebitis or other untoward sequel occurred to either patient or donor. I had been prepared to expect rigors, an aggravation of the dyspnœa, hæmaturia, or some other troublesome symptom, but instead, bodily comfort and peace of mind immediately took the place of great mental and physical distress. How much of this is traceable to the fact that human blood was used instead of that of some other species of animal, I am unable to say; but bad results have more generally followed transfusion when blood from another species of animal has been used. Although the urine was not examined chemically or microscopically, no apparent change occurred in this secretion subsequent to the operation.

9. The simplicity of the operation. Performed in this way, it requires no special, complicated apparatus, nothing but a pair of scissors, or a knife, and a syringe. And as the hypodermic syringe is always at hand, transfusion is an easy matter. I am indebted to Surgeon W. C. Spencer, of the Army, for the idea of the system of ligatures, but I believe this is the first application of the idea. In this connection I cannot refrain from transcribing an expression of Druitt's, which occurs in his work on Surgery: "It is consolatory, therefore, to know, that most of the successful cases of transfusion have been performed with common pewter or brass syringes."

* *London Medical Times and Gazette*, Sept. 5, 1874.

10. The small quantity of blood used. Before two ounces had been injected, the patient became easier and more comfortable, the dyspnœa had nearly disappeared, the number of respirations per minute perceptibly lessened, and as soon as he expressed a "sense of fullness in the head," I desisted. I have not now the literature of the subject at my command, but I can remember instances in which eight to twelve and even sixteen ounces are spoken of as necessary.

11. The force necessary to introduce the blood. This, while it would not surprise a demonstrator of anatomy who had been accustomed to the injection of cadavers, was much more than I had supposed would be required to introduce a fluid into a living vein of the size of the median cephalic.

12. The use of defibrinated venous blood. Professor Albani is credited with having said that he does not think that any fluid obtained by defibrination is worthy the name of blood;* and Gesellius, in his monograph, says defibrination is not only useless but injurious, because small fibrinous clots and rouleaux of blood corpuscles are always abundantly present in blood which has been whipped and stirred to remove its fibrin, and there is, therefore, the danger of the production of embolisms by their means—and further, that defibrinated blood is to a certain extent dead, because its corpuscles have become exhausted in the production of the fibrin, and the transfused blood will be less and less beneficial the more perfectly the defibrinating process has been carried out.†

Despite the caution which has been often given to avoid using, as a donor, a person addicted to liquor, I used blood from a man, who, in his enthusiasm, had nearly tested his capacity for liquor just before the operation; but the quality of the blood seems not to have been materially injured.

* *London Medical Times and Gazette*, Sept. 5, 1874.

† *London* " " " " Dec. 19, 1874.

To Dr. C. V. Petteys, A. A. Surgeon, U. S. A., and Dr. J. L. Mills, Medical officer to the Spotted Tail Indian Agency, great credit is due for their assistance and counsel in this case.

Feb. 29, 1876. The patient weighed 114 pounds to-day, and is increasing in weight at the rate of three-quarters of a pound daily.

CAMP SHERIDAN, Neb., Feb. 29, 1876.

REPORT ON CERTAIN TOPICS CONNECTED WITH THE PROGRESS OF CHEMICAL INVESTIGATION.

By HENRY M. LYMAN, M.D.,

PROFESSOR OF CHEMISTRY IN RUSH MEDICAL COLLEGE, CHICAGO.

(Read before the Chicago Medical Society, April, 1876.)

No very brilliant discoveries of a nature to captivate the popular fancy, have rewarded the recent labors of chemists. Something, however, has been accomplished in the way of utilizing previous discoveries, as may be seen by a recent paper on the preparation of oxygen, by Dr. A. W. Hoffmann, translated and published in *Nature*, Feb. 10 and 24, 1876. All the methods, usually noticed in text-books, for the preparation of oxygen, are passed in review, and a large number are described. The easiest and cheapest method for the production of the gas was originated and perfected by a French chemist, M. Tessié du Motay, who has, since 1867, experimented continually with the object in view to produce oxygen so abundant and cheap that it may be used in the arts as freely as we now use ordinary coal gas.

He has succeeded in preparing it in almost any quantity at a cost of three francs, or about sixty cents, gold, per 1,000 feet. The method consists in passing air over caustic soda and manganese di-oxide at a dark red heat. ($4 \text{ Na OH} - 2 \text{ Mn O}_2 - \text{O}_2 = 2 \text{ Na}_2 \text{ Mn O}_4 - 2 \text{ H}_2 \text{ O}$). The

manganate of sodium, thus formed, under the influence of a dry current of overheated steam, disengages at the same temperature caustic soda, sesquioxide of manganese and free oxygen. ($2 \text{Na}_2 \text{MnO}_4 + 2 \text{H}_2 \text{O} = 4 \text{NaOH} + \text{Mn}_2 \text{O}_3 + \text{O}_2$).

The principal use of oxygen, thus far, has been in connection with the metallurgy of platinum. It has been recommended as an auxiliary for the Bessemer process of making steel—using a blast of oxygen instead of common air; but the great difficulty of finding materials sufficiently refractory for the construction of the retorts and furnaces which would be needed, thus far hinders the adoption of such a method.

It is for illuminating purposes that the gas is now mostly employed. The oxyhydrogen lamp, employing zirconium-cones instead of chalk cylinders, yields a light sixteen and a half times as strong as the consumption of the same amount of coal-gas would afford. Various experiments for the illumination of streets and buildings by this method have recently been conducted in the European capitals. In Berlin it is said of the illumination of a railway station and its adjoining grounds, that “the effects caused by the little bluish flames are quite peculiar, and cannot be compared with any other light. The green of the trees seems more vivid, the colors of the dresses more brilliant, and above all, the faces of the people appear clearer—almost as distinctly as in full daylight.”

Thus far, however, the necessity of duplicating every gas pipe, and the fact that coal gas must still be furnished, as the hydrogen element of the burning gas, so increases the expense and danger of this method of illumination that there is no immediate prospect that its adoption will become at all general.

In this connection I may be allowed to present a few estimates concerning the cost of illuminating gas manufactured in Chicago. It is difficult to get at the figures which are necessary to complete accuracy in such a com-

putation, but sufficient data have in one way or another been made public to show that gas can be manufactured and sold for much less than is now charged for it, and still be made to yield a fair profit on the capital invested.

Cost of gas mains in Chicago, A. D. 1875 :

South Side.....	\$1,818,680
West Side.....	1,256,640
	3,075,320

To this must be added the value of the gas works, for which no figures have been published, but for which, with land, gasholders, and a stock of coal for a year, a very generous estimate would be.....	2,000,000
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Cost of plant — total	\$5,075,320
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The cost of gas meters is not included, because they are virtually paid for by the gas consumers.

The total amount of gas manufactured during the year 1875, was.....	695,000,000 ft.
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Deduct 10 per cent. for waste (a large estimate)	69,500,000
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Leaves, for consumption.....	625,500,000 ft.
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The value of this amount of gas, at \$2.50 per 1,000 feet	\$1,563,750
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The cost of producing this gas was, for wages of employes.....	\$283,650
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For price of coal, and expense of manu- facture of 76,000 tons of coal.....	395,777
--	---------

Total cost of 625,500,000 feet of gas.....	679,427
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Total profit derived from sale of gas..... (0.176 per cent. on \$5,000,000.)	\$884,323
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Besides this profit, every ton of coal should yield 170 lbs. of tar, estimated at 150 lbs. per ton. 76,000 tons 150 lbs. = 11,400,000 lbs. coal tar. Also, every ton of coal yields about 500 pounds of coke for sale = $76,000 \times 500 = 38,000,000$ pounds.

Coal tar is worth about $\frac{1}{2}$ cent. per pound—value of		
tar		\$57,000
Of coke there should be for sale about 1,140,000		
bushels, worth at 8 cts. per bushel.....		91,200

So that from the sale of coke and tar alone the income is sufficient to pay the taxes, and to make up for the wear and tear of the apparatus and gas mains (estimated at 15 to 20 cents per ton of coal used, each year.)

As a matter of fact, the gas companies, at the present rate of consumption, are sure of an income of not less than twenty per cent. on their investment, as long as the price of gas is held at \$2.50 per 1,000 feet. It should be remembered, too, that there is no uncertainty or extra hazard about the investment. The manufacture is not liable to accident. There is no waste. Everything is saleable, and the exact amount of production can be calculated and anticipated with perfect accuracy. Money invested in the business is as safe as if it were put into Government bonds, and it is far more productive.

The recent improvements in the process of manufacture by which salicylic acid is obtained, are bringing that substance more largely into use. It differs from carbolic acid ($\text{HC}_6\text{H}_5\text{O}$) by the addition of the elements of carbonic anhydride ($\text{HC}_6\text{H}_5\text{O} + \text{CO}_2 = \text{HC}_7\text{H}_5\text{O}_3$).

Carbolic acid is obtained from coal tar, and as it may be converted into salicylic acid by anhydrous carbonic acid gas in the presence of an alkali metal, we have in this fact a new source of value for the coal tar which is produced in the distillation of illuminating gas.

Salicylic acid, when pure, is a white, crystallized substance, with a not disagreeable taste, and is soluble in three hundred parts of water, or in four parts of alcohol. It is not poisonous, for Prof. Traube prescribes it for acute rheumatism in doses of one gramme every hour until ten or fifteen grammes have been taken. Thus used it produces noises in the head, deafness, and antipyretic effects similar to quinine. It is, however, as a disinfectant, or antiseptic agent that it has been chiefly used.

It has been asserted that it is even more powerful than carbolic acid to destroy low organic forms and ferments. It is stated by Kolbe that its action is most decided upon those organic principles which, though formed in living tissues do not themselves constitute independent living forms. Such ferments are ptyalin, pepsin, emulsin, diastase, and similar unorganized causes of fermentative change. Upon the *organized* ferments, such as the yeast fungus and its class, salicylic acid seems to be more potent than carbolic acid. It also prevents putrefaction by destruction of those low forms of organized matter whose development in any given substance is the exciting cause of decomposition. This represents the current opinion regarding the substance. But in *Der Naturforscher*, for December, 1875, (quoted in *Nature*, Feb. 17, 1876, p. 317) is a paper by M. Fleck, of Dresden, "which appears to damp recent optimism in reference to salicylic acid as a means of disinfection. He finds that carbolic and salicylic acids may, under certain circumstances, even accelerate fermentation. Benzoic acid is more effective against fermentation, and cinnamic acid still better; but their small solubility in water is against their use. The antifermentative action of benzoic, carbolic and salicylic acids is dependent on the quantity of nitrogenous yeast-food; with increase of this the value of their action diminishes. The acids are not specific yeast poisons."

The recent use of nitrate of zinc, as a substitute for nitrate of silver, has been already noticed in the medical journals; and need not be mentioned further in this connection.

A French chemist, named Lecoq, has recently discovered a new metal resembling zinc. Delicately complimenting himself and his native country, he has named it Gallium.

The *American Journal of Science and Arts*, for January, 1876, contains an interesting paper by Prof. Draper, of New York, relative to the rotation of polarized light by solutions of quinine. He finds by experiment that

“the presence of sulphuric acid changes the rotation power of the alkaloid by 100° . Quinine used to be given in the form of sulphuric acid solution, and in the recently more popular form of pills or the like, its action is much less, and less certain; this difference being doubtless due to the change of molecular arrangement which is revealed in action of sulphate solutions of the alkaloid on light.” (*Nature*, Feb. 17, 1876, p. 317.) Here, however, it may be questioned whether the professor has not too far left out of consideration the imperfect solubility and possible adulteration of many of the pills which are prescribed.

It is in the department of *physics* that are now being conducted those investigations which seem to promise most advantage to the progress of science. Mr. Crookes has recently performed a number of experiments which seem to prove that a ray of light falling upon a body *in vacuo* can communicate motion to a body so poised. The fact is disputed by some experimenters, who attribute the observed motion to the heat which may accompany light. However that may be, it is certainly a beautiful illustration of the power of *radiant energy* to produce motion in space.

Mr. J. Norman Lockyer is still pursuing his investigations with the spectroscope. He is gradually approaching the conclusion that the metallic elements represent forms of matter more simple than the *non-metallic* elements—in other words, that oxygen, chlorine, nitrogen, and elements of that class, are probably compound instead of simple substances.

H. C. Sorby, F.R.S., the well known president of the Royal Microscopical Society, has recently delivered a very interesting anniversary address on the *Relation between the limit of the powers of the microscope and the ultimate molecules of matter*.^{*} He shows that there is a “limit of visibility depending on the constitution of light.” This “limit depends on the confusion in the image due to the

^{*} *Nature*, Feb. 24, 1876, p. 332.

bright interference fringes overlapping the dark outlines of the object. This limit varies directly as the wave length of the light, and inversely as the sine of half the angle of the aperture of the object-glass when illuminated by means of a condenser of equal aperture." It is therefore necessary to believe that the normal limit of distinct visibility with the most perfect microscope is half of the wave-length of the light. If so, we must conclude that, even with the very best lenses, except under special conditions, light itself is of too coarse a nature to enable us to define objects less than $\frac{1}{80000}$ or $\frac{1}{100000}$ of an inch apart, according as a dry or an immersion lens is used. We must also conclude that *as far as this question is concerned*, our microscopes have already reached this limit."

Mr. Sorby then discusses the relation between this limit and the dimensions of the absolute atoms of matter as estimated by Stoney, Thomson, and Clerk Maxwell. A slight omission in his figures vitiates their absolute accuracy ; but is not sufficient to affect the conclusions drawn from their study. He shows that "in the length of $\frac{1}{80000}$ of an inch (the smallest interval that could be distinctly seen with the microscope) there would be about 2,000 molecules of liquid water lying end to end, or about 520 of albumen. Hence, in order to see the ultimate constitution of organic bodies, it would be necessary to use a magnifying power of from 500 to 2,000 times greater than those we now possess. These, however, for reasons already given, would be of no use unless the waves of light were some $\frac{1}{20000}$ part of the length they are, and our eyes and instruments correspondingly perfect. It will thus be seen that, even with our highest and best powers, we are about as far from seeing the ultimate structure of organic bodies as the naked eye is from seeing the smallest objects which our microscopes now reveal to us.

As an illustration, I have calculated that with our highest powers we are as far from seeing the ultimate

molecules of organic substances as we should be from seeing the contents of a newspaper with the naked eye at the distance of a third of a mile; the larger and smaller types corresponding to the larger and smaller molecules of the organic and inorganic constituents."

According to this computation a mass of organic matter, the size of a blood-globule, $\frac{1}{3000}$ of an inch in diameter, would contain about 20,000,000,000 molecules; and "a spherical particle one-tenth the diameter of the smallest speck that could be clearly defined with our best and highest powers, might nevertheless contain no less than one million structural molecules."

The relation of these facts to the communication of disease through the agency of minute particles of organized matter is very obvious. When we reflect upon the fact that organized bodies may be traced to the very limit of vision without any indication that they constitute the primordial representatives of living matter, we are constrained to believe that below the limits of our vision there is still a world of organized forms—germs, some of them, of forms which may or may not expand into visibility—and that among these invisible entities may very probably be classed certain poisonous organisms, germinating under the influence of heat and moisture in particular soils, and impregnating the atmosphere with what we call *malaria*, as well as other organisms which, multiplying within the human body and conveyed thence to other human bodies, may occasion the phenomena of the various infectious or contagious diseases. If this be so, the microscope can only help our search for the causes of communicable diseases in the universe of visible objects, but can throw no light whatever upon the existence and nature of the lowest organisms. Referring once more to Mr. Sorby's computations, it is evident that every blood-globule in the body might be invaded by a living mass of organized matter in which were assembled no less than one million molecules—an army of Germans devastating France; and yet, before the commencement

of its disintegration through the progress of the disease, the microscope could reveal no change whatever in the appearance of blood which had been thus entered. Nor need we be surprised at the virulence of such minute bodies. A drop of prussic acid may instantly kill a large animal. Why then should it seem strange that a germ which, though invisible, must be capable under favorable conditions of propagating its kind indefinitely, might so impregnate the tissues of an animal as to produce a dangerous if not fatal disease without any visible alteration of the histological elements of the tissues. We can only reach a knowledge of the existence and nature of such entities through the exercise of our reason upon the phenomena of disease, just as we arrive at a belief in the existence of interstellar ether through a consideration of the phenomena of light.

JÆGER'S OPERATION FOR CATARACT.

By LYMAN WARE, M.D., CHICAGO.

(Read before the Chicago Society of Physicians and Surgeons.)

Prof. Jæger claims the following as some of the advantages of his operation over all others:

1. The possibility of making a complete linear section, thereby facilitating the extraction of the largest lens.
2. The possibility of having complete control over the eye, without fixation while making the section.
3. The *complete retention* of the aqueous humor while the section is being made, which is considered of the *greatest importance*.
4. The proportionally slight increase of the intraocular pressure during the operation.
5. The relatively easy task of removing the lens.

Prof. Jæger says that even among ophthalmologists the line of demarcation between the linear and flap section is not closely drawn. That can only properly be

considered a linear section whose entire length is at right angles to the same superficial layer, and which has a

FIG. 2.

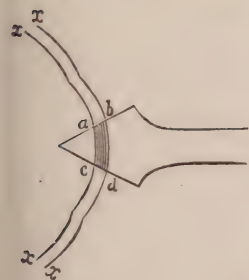
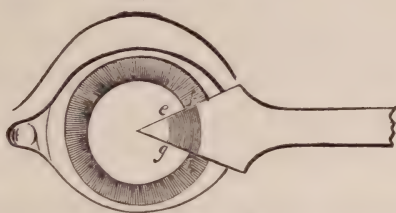


FIG. 1.

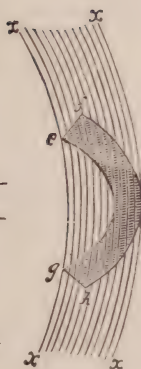


FIG. 3.



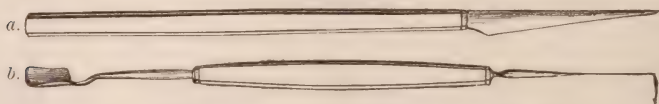
FIG. 4.



FIG. 5.

common axis. In Fig. 1, allow $x x$ to represent the several coats of the eye. Then the section $a b c d$ in its entire length is in the same direction to the superficial layer, and its breadth is the narrowest possible. In Fig. 2, the knife is not perpendicular to the eye but placed at an angle, and the section $e f g h$ is not at right angles to the same superficial surface, and has the greatest possible breadth, and forms consequently, a perfect flap. Figs. 3, 4, and 5, will show the same more clearly. In Fig 3, no portion of the section has the same common axis. Fig. 4 is inclined to a linear section, as that portion of the section $p p$ has the same common axis, and is at right angles to the same superficial surface. Fig. 5 is still more inclined, having the portions $o o p p q q$ in

its entire length in the same angle. Prof. Jæger operates in the sitting posture; is ambidextrous, dispenses altogether with anæsthetics and the eye speculum, depending wholly upon his assistant. The knife he uses is somewhat triangular in form, very similar to Beer's knife, $1\frac{1}{2}$ inches in length, its greatest breadth $\frac{1}{3}$ of an inch, its back blunt but very thin; its surface is cylindrically curved, the curve representing a circle with a



a. Jæger's knife.

b. Cystotome and depressor.

radius of $\frac{1}{3}$ of an inch. He inserts the knife (the concave surface looking forward) in the outer, upper portion of the sclerotic $2\frac{1}{2}$ or 3 lines from the corneal junction, and 4 or $4\frac{1}{2}$ lines below the upper corneal line; the exit exactly corresponds to the entrance point; the knife is held at an angle of about 45 degrees to the bulb of the eye, and consequently the section lies for the most part in the cornea, and has an average length of about $\frac{2}{3}$ of an inch. After iridectomy he opens the capsule with his cystotome, which has a horizontal length of $1\frac{1}{8}$ inches, an arm which is at right angles to the shaft and which has a length or projection of $\frac{1}{3}$ of an inch, and is provided with a slight hook or projecting needle point. In introducing and removing the cystotome he is particularly careful in keeping it in contact with the posterior corneal surface. In removing the lens he presses lightly with his curette, whose curve corresponds to that of the eye, upon the upper corneal section, producing at the same time counter pressure by means of the index finger placed upon the lower section.

Being ambidextrous, his instruments must of course be duplicated, so as to correspond with the eye being operated upon.

Prof. Jæger's statistics are not yet sufficiently full and complete to judge impartially of his ingenious and long

studied operation, yet he is confident that its many excellencies will recommend it favorably to the profession.

ADENIA — WITH REPORT OF CASES.

BY N. A. DRAKE, M.D., OSSIAN, IOWA.

We have but very little literature on the subject of this disease. Trousseau devotes a lecture of thirty-one pages to it. He it was who gave it the name—Adenia. It is a disease characterized by progressive hypertrophy of the lymphatic glands. Trousseau claims no priority in describing the disorder, but gives due credit to Hodgkin, of England, who described it as far back as 1832; and to-day it is known as Hodgkin's disease. The Royal College of Physicians, however, do not recognize it. Yet Aitken gives two pages in his work to its description, and regrets that he, among others, has aided in confounding it with lardaceous diseases.

Virchow describes the disease as lympho-sarcoma in his work on Tumors, which first appeared in 1865.

Wunderlich, I believe, adheres to the name of Hodgkin's disease.

Trousseau's lectures were not delivered on this subject until two years after Virchow's, and hence he was able to give the result of more study.

Little can be found, written this side of the Atlantic, on this disease.

Dr. W. H. Triplett read an essay on the subject before the Medical Society of the District of Columbia in 1874. In this he adheres to the name of Hodgkin's disease.

In July, 1869, I was called to see a Norwegian woman, about thirty years of age, who had lately arrived in this country. On first sight she presented a peculiar appearance. The cervical and submaxillary glands were so enlarged as to produce a very singular deformity, while she had a peculiar cachexia. Her breathing was

labored, she had a dry, hacking cough, and complained of great constriction in her chest. The axillary glands were as greatly enlarged as those in the cervical and submaxillary regions. There was no tendency to suppuration in any of the tumors; they were not inflamed at all. I could manipulate them freely with no complaint from the patient. The glands in the inguinal region were not as much enlarged. There was considerable anasarca. On auscultation of the chest, I could detect nothing but exaggerated normal sounds.

I gleaned from her that she had first noticed these tumors about one year previous, and that they had been gradually enlarging. Her appetite was good, but she was considerably emaciated. The liver and spleen were not perceptibly enlarged.

She died the month following.

I now believe this to have been a typical case of adenia. I then contented myself with pronouncing it a case of scrofula. I possessed neither the book of Trousseau nor Aitken at the time.

In May, 1874, L. F., an American, something over thirty years of age, at that time a "runner" for a Chicago grocery house, consulted me for violent nocturnal pain in his abdomen. He said it had been troubling him occasionally for two or three months, and usually he obtained relief by hot fomentations. He looked careworn, as one does who has lost sleep and suffered pain. He was still traveling, and desired me to attend him so that he would not be obliged to suspend business. I gave him a casual examination, and thinking his trouble originated from more or less indigestion and irritability of bowels, I prescribed a laxative, to be followed by an anodyne; and as he was going to remain at home a few days, requested him to call and see me again before he went away. He did so, and reported himself considerably relieved. He went away on a trip but returned in a short time as bad as ever, and I then advised him to remain at home for awhile.

About this time he called my attention to some bunches in his neck, and said he had some under his arms and in his groins. Upon closer examination I found almost all of his superficial lymphatic glands slightly enlarged and none of them inflamed. This at once called to my mind the case just related.

Remembering that I had read something in Trousseau that seemed to describe his case, I turned to Adenia and was at once convinced that I had this disease with which to contend.

Having business that called him to Chicago, I advised him to consult Prof. Freer, not having given him yet an unfavorable prognosis.

He returned from Chicago in a week and told me that by the advice of a friend he had consulted Dr. Ludlam, a homœopathist. He said Dr. L. told him his difficulty was irritability of the bowels.

In about a month he returned and asked me to treat him. I then told him that his case was hopeless; that his disease would eventually prove fatal. The disease was steadily advancing. The cervical and submaxillary glands were now noticeably enlarged, as were nearly all his superficial lymphatic glands; and I accounted for the nocturnal pain in his bowels, which continued, by the enlarged glands pressing on the nerve centers.

He was dissatisfied with my prognosis, and knowing of his confidence in Dr. Bulis of Decorah, I advised that he consult him.

Dr. Bulis confirmed my diagnosis, told him that medicine would be of no use, and advised him to go to some mineral spring.

He went back again to homœopathy, then to the most abject quackery.

For a time he looked better. He had now given up traveling, and considering himself improved, he opened a grocery store in our town.

The disease made steady progress, and I learned he was kept up on stimulants and tonics.

When cold weather came he grew rapidly worse, and then went to Hot Springs, Ark. ; returning, towards the spring of 1875, much worse.

On April 25th he sent for me to prescribe for him. He was very much emaciated ; had marked cachexia ; the pulse was somewhat accelerated ; respiration was difficult except when quiet ; all the lymphatic glands were very large ; there was extensive anasarca ; the urine was scanty ; the appetite very good. He was suffering no pain. I could do him no good.

He died May 16th, about one year from the time he first consulted me.

The glands in this case were not as large as in my first case. There was not much dropsy in the first case, while this was a very prominent symptom in the second, especially towards the last. The spleen was not enlarged in either case.

Trousseau reports eleven cases, and enlarged spleen occurred only in three, hence he infers that the spleen is not necessarily involved.

In both of my cases glandular enlargement was first noticed in the cervical region, and the affection appeared to travel successively downward.

In case of L. F. the first complaint was of nocturnal pain in the bowels. Neither Trousseau nor any other author I can find speaks of a parallel case. I think the pain was caused by the pressure of the enlarged glands on the nerves, especially when in the recumbent posture. I could distinctly feel these glands through the abdominal walls.

All cases of this disease, that I can find reported, have ended fatally. The duration of the disease is from a year to a year and a half.

VICARIOUS HÆMOPTYSIS.

By J. S. McCORD, M.D., NEW WINDSOR, ILL.

(Read before the Military Tract Medical Society, at Galesburg, Ill., Jan. 11, 1876.)

I have to report a case of vicarious hæmoptysis, not using the term *vicarious*, perhaps, in its most commonly accepted sense—that is, one organ performing a function which properly belongs to another—but arguing that in this case the lungs take upon themselves the labor of a discharge which, in itself, was primarily morbid, viz a chronic abscess of cellulitis.

Mrs. N., aged forty, during a space of eighteen years, with the exception of three periods of pregnancy and nursing of usual duration, had almost every menstrual period followed by the formation of an abscess in the left ileo-uterine space. I think it is about a year and a half since I was called to see the patient, then suffering from one of those recurring attacks, somewhat more severe than previous ones, although she described them as all being “perfectly awful” until after occurrence of discharge, a period ranging from a few hours to three or four days. After thoroughly satisfying myself as to the nature of the case, I further verified my diagnosis by a physical examination, finding a large fluctuating tumor bulging into the vagina from the left side. I proposed to evacuate the pus. But this was objected to by the patient and her husband, on the ground that for eighteen years it had “broken itself,” and when I argued the possibility of its discharge into the peritoneal cavity, the rectum or bladder, and so bringing about serious trouble, I was further assured that it had not only “broken,” but “*broken in the right place.*” In due time the pus was discharged by an ulcerative process and the woman recovered as usual.

A few days later the patient came to my office desiring to know if anything could be done to prevent the constant return of her trouble. I advised a course of local

treatment, with some constitutional remedies. But this advice, with something of her old spirit, she positively refused to accept. I then ordered the external application of tr. iod. over the seat of the abscess, as often as could be conveniently borne, together with potassic iodide and strychnia, thrice daily, internally.

I saw her from time to time, and ordered the treatment continued. To my great surprise, and at first to my delight, after a few months the abscess formation became less and less frequent, and at this date has not occurred for a period of nine months, although menstruation is still, as it has been, regular. The only trace of the abscess remaining, is a slight tenderness in the left iliac region. Now comes the point of interest in the case. Almost immediately upon the suppression of the abscess there commenced to occur the vicarious discharge of blood from the lungs in connection with or immediately following each menstrual flow. And to be strictly truthful, I should be forced to confess to my patient that I had, by interfering, actually induced a discharge from the wrong place.

CINCHONIDIA SULPHATE.

By E. H. PURDUM, M.D., HERMON, ILL.

(Read before the Monthly Tract Medical Society, at Galesburg, Ill., Jan. 11, 1876.)

In the early part of last year (1875) my attention was called to cinchonidia sulphate, and since that time, I have used it quite extensively, especially in intermittent and remittent fevers, and with results equal, so far as I could see, to those obtained by the use of sulphate of quinine; and with this advantage: my patients make no complaint about the disagreeable noises in the head, which accompany the use of quinine in the large majority of cases, though they generally supposed they were taking the latter drug. The dose I aimed to have corres-

pond with those of the quinine, when given under similar conditions.

The irritation of the stomach does not exceed that of any other of the alkaloids.

In illustration of its virtues I subjoin a few cases, or rather a synopsis of them :

CASE I. — Was called, Aug. 6th, 1875, to see G. L., male, aged 18. Has had general good health until within the last few days. On the 5th day preceding my visit, he had some slight chilliness alternating with hot flashes ; feels sore all over ; has no appetite ; bowels have been constipated for several days ; tongue enlarged and coated heavily ; pain in the head, and slight tenderness over the region of the liver ; and there is some fever.

The residence of this patient is on the northwest side of Cedar creek, in the bottom, and not over eighty rods from it, surrounded on three sides by high hills, and with the prevailing winds from the south—a good location for malarial fever certainly. I gave him a purgative of comp. cathartic pills. I also ordered $4\frac{1}{2}$ grains of cinchonidia sulphate and two grains each of pulv. Dover and pulv. Zingiber, every four hours.

Aug. 8th.—The patient is much better ; has not had any symptoms of chill or fever. Continued treatment for two days more.

On the 17th of August the young man spoken of above, came to my office to get medicine for five others of his brothers and sisters, being entirely well himself.

The five sick children ranged in age from eight to sixteen, and all were having intermittent fever. I prescribed cinchonidia sulphate, pulv. Dover and Zingiber, in four of these cases. I will simply state that the result was all that could have been expected under any method of treatment, and by afterward following this treatment with an antiperiodic mixture, there was no return of the disease in any of these cases.

CASE VI.—July 3rd, was called to see W. P., aged 55 ;

farmer. Found him with a fever, which was very high ; this had been preceded by severe chill ; tongue was very heavily coated, of dark brownish color ; bowels constipated ; pulse strong and quick ; intense pain in the head, accompanied by considerable stupor. I administered a full cathartic, and gave five grains of cinchonidia sulphate and two grains each of pulv. Dover and pulv. Zingiber, every three hours, commencing when the fever subsided. This treatment was continued over the 4th.

July 5th.—Has not had any chill or fever, and otherwise is better. Treatment continued for two days, and case dismissed.

On Aug. 6th, W. P. had another chill, followed by fever ; being about one month from his first attack. It will be well to give here a few of the circumstances surrounding this case. He was living in a very malarious locality, viz.: on the north side of Cedar creek, and had been laying drain tile for the purpose of draining a slough and a pond of standing water, which were on his farm—circumstances and conditions peculiarly liable to produce malarial disease.

At the same time (viz., August 6th,) that Mr. P. had his second attack, there were three of his children taken ill ; the oldest, aged 16 years, with typho-malarial fever ; the other two, aged 8 and 12 years, were cases of well marked bilious remittent fever, and were treated with cinchonidia sulphate, and their recovery was satisfactory, and not followed by any relapse.

These cases are designedly selected from localities very favorably situated to develop malarial fever, and the result of their treatment shows conclusively that the remedy has a very beneficial effect.

CASE IX.—Was called Oct. 3rd to see W. J., aged about 38 ; farmer and stock raiser ; living on the south side of Spoon river, and not over eighty rods from the stream. Has not been feeling well for some time, but still able to attend to his farm and stock ; two days ago

exerted himself very much in trying to drive some cattle, and on the 2nd he had a chill; has been feverish ever since, though the cool air would make him feel chilly whenever he came in contact with it. His bowels were torpid and he had no appetite; he therefore took a dose of pills, which acted pretty freely on his bowels also, producing a free emesis. He has not rested well through the night, and this morning (3rd) he is nervous and restless, being very easily disturbed; there is slight headache; pulse weak and small. The tongue is coated a dark brown in the centre, and the edges are very red; skin dry. Diagnosis: typho-malarial fever. I gave him five grains of cinchonidia sulphate and two grains each of pulv. Dover and pulv. Zingiber, every four hours. In addition, I left bromide of potassium to be administered as required, to allay nervousness and to promote sleep.

Oct. 4th.—Found him quieter. Continued the treatment. On the 5th he was much improved. There has not been any return of the chill, and the fever is subsiding.

Oct. 6th.—Continued treatment, as he was still satisfactorily progressing.

This treatment was continued six days longer, with an occasional cathartic, the patient making steady improvement.

After this time he was put on a mild tonic, which was kept up for an indefinite time.

In all those innumerable ills, such as slight neuralgias, rheumatism, etc., for which we are called to prescribe daily, I almost invariably use this remedy where I formerly used the quinine, and with favorable results.

A CASE OF VESICO-VAGINAL FISTULA AND LACERATION OF ANTERIOR PERINEUM,

THE DIRECT RESULT OF THE MALADROIT USE OF FORCEPS.

BY A. B. NEWKIRK, M.D., HYDE PARK, ILL.

Mrs. Maria H. was a native of England, 35 years of age; five feet eight inches in height; weight, 180 lbs.; mother of four children, and of robust health up to the time of her last accouchement, July 27th, 1875.

Mrs. H.'s first three children were born with easy natural labors, the first child weighing 12 pounds, and the second and third 10 pounds each at birth, and the last child, with an unusually small round head, though not weighed, was supposed to weigh between 6 and 7 pounds.

Mrs. H.'s last labor commenced about four o'clock in the morning and continued with slight increase in the force and frequency of the pains until ten o'clock, when Dr. J. (homœopathist), who having been called was in attendance, expressed his unwillingness to wait longer for more forcible pains, proceeded to deliver with forceps, and had great difficulty in applying them, "owing to a very rigid condition of the uterus," and in their application and use caused great pain and suffering to the patient, the forceps slipping seven or eight times. The Dr. continued the use of the forceps for about four hours, excepting that when he would become fatigued from protracted effort, he would rest for a few minutes at a time.

Delivery was finally effected about two o'clock P. M., of a male child with scalp lacerated, much bruised and tumefied on the antero-superior temporal region, where there is now to be seen an indelible cicatrix, and the left eye and cheek bruised and swollen and the latter lacerated. The delivery was followed by alarming hæmorrhage.

On the day following delivery there was a great deal of soreness, pain and tumefaction of the genitals, and *the urine no longer flowed through the urethra, but*

passed through the vagina, and continued to do so up to the time of the death of the patient. The inflammatory action set up in the vagina and pelvic viscera (evidently by the maladroit use of the forceps) continued for about four months, with resultant constitutional disturbance of varying intensity, until December 3rd, when there was a discharge at one time of over half a gallon, by measure, of very offensive muco-purulent matter, after which the sufferings of the patient were much less. Mrs. H. continued during these four months under the care and treatment of Dr. J., who, during this time contributed greatly to the discomfort and suffering of the patient by the caustic and other local applications made by him to relieve the immediate effects of the first injury, until she became greatly anæmic after her long suffering. Then Dr. J., discouraged, perhaps, by the results of his blunders, informed the husband of the suffering woman, Mr. John H., an intelligent and accomplished florist and gardener, that his wife was laboring under cancer of the womb; that he could do nothing more for her, except with a view to mitigate her suffering, and that she would linger for three years with the cancer.

Mr. H. was much grieved when informed that his wife had cancer of the womb, as he had lost a former wife in consequence of this affection. Although a poor man, he was anxious to have the sufferings of his wife, as far as possible, mitigated if not relieved, and hence sought and obtained advice and treatment by several physicians without benefit.

On Jan. 21st, last, I was called to see the patient, and obtained from her, her husband, and the nurse who was present at the time of her accouchement and for some time thereafter, the above narrated history of this case, substantially. I found Mrs. H. an object of pity and compassion; her cadaverous face and anæmic condition impressed me with the belief that she might not survive the night without the liberal use of stimulants and cor-

dials. She was certainly too weak to be removed from where she lay upon a lounge remote from a suitable light in order to undergo an examination. I therefore directed that she be given freely of stimulants and beef tea, and took my leave, promising to return the following morning, and, if the condition of the patient then would justify it, I would complete the examination of the case.

The following morning I found her more comfortable and somewhat refreshed by the stimulants and beef tea ordered the previous day, and proceeded to carefully examine the parts, after placing her upon a table in front of a good light, and rinsing the vagina well with a solution of carbolic acid.

I found as lesions, vesico-vaginal fistula two inches in length antero-posteriorly and one inch in its greatest transverse diameter in the bas-fond of the bladder; its edges were smooth and somewhat thickened. The internal surface of the bladder was quite corrugated in appearance, and its cavity of not more than one-half the normal size.

I could see, while looking through the speculum and fistulous opening, the urine dropping at regular intervals from the ureters into the bladder.

The canal of the urethra was closed by viscid mucus (or adhesions), so as to require considerable force to introduce a catheter.

I could not see the os uteri, but it, with that portion of the uterus presented to view, felt firm and immovable, apparently in consequence of adhesions of its posterior face to contiguous tissues.

There were several ulcerated surfaces to be seen upon the mucous membrane lining the vagina, one on its posterior face fully an inch in its greatest diameter, and extending in depth nearly or quite through it.

The anterior perineum and about two inches in length of the inferior recto-vaginal septum, with its mucous covering, were lacerated, leaving the rectum for that distance exposed anteriorly.

The lacerated and ulcerated surfaces were discharging a muco-purulent matter, freely.

The extent of the consequent drain upon the system may be approximated when we consider that, during the examination, lasting about thirty minutes, there was collected upon a napkin placed under the hips of the patient, about a fluid ounce, notwithstanding the precaution taken, before commencing the examination, of rinsing well the vagina and bladder with a solution of carbolic acid.

I inquired of the patient particularly, *if she had had any lesions of the bladder or perineum before her last confinement, and, at what time she first noticed any; also, when she first noticed the urine pass through the vagina;* to which she replied, that "she was perfectly healthy and had no trouble of the kind named before her last babe was born; that *the day after that*, she noticed that her water did not pass out the natural way, but dribbled away from her continually through the 'birth place;' that the 'birth place' was so inflamed and painful to her for some time that she could not bear to have it touched; and when the swelling somewhat subsided, she found the lower part of the outlet all torn away; that the doctor nearly killed her with his instruments when she was confined, for he hurt her so badly when he was fixing them and when they slipped, as they did seven or eight times."

After completing the examination of the case and satisfying myself as to the condition of the patient, I explained to Mrs. H. and her husband, the nature of the case, (the first intimation of the kind they had received from any one), probable cause, and results to be reasonably expected from treatment; that vesico-vaginal fistula could be produced in three ways: first, by idiopathic disease of the bladder, or agents acting mechanically upon its internal surface, resulting in lesions, first of its inferior walls, and secondly of the superior walls of the vagina; second, that a child's head, relatively large, im-

pacted in the superior strait of the pelvis, and so pressing upon the neck of the bladder sufficiently long, would result in inflammation and sloughing of its walls and that of the vagina; third, by direct mechanical means operating from within the vagina, first upon its superior walls, and secondly upon the inferior wall of the neck or bas-fond of the bladder.

In carefully examining the history of this case, as presented above, we find no evidence of the first named cause having existed *prior* to the existence of the fistulous opening.

When we consider the fact of the comparatively large and well developed pelvis of the mother, and the fact of the child's head being round, and small for a child weighing less than seven pounds, and the further fact that there is no evidence going to show that there was any retention of the head in contact with the bladder by impaction, and the additional fact, that, if produced by long pressure of the head upon the bladder the resulting fistulous opening would not have been produced so soon as it was in this case by several days, we are justified in the conclusion that in this case the fistulous opening cannot be the result of the second cause named.

We are, therefore, left with the third cause named to account for the lesion of vesico-vaginal fistula, and by the same course of reasoning we are forced to conclude that the lesions of the antero-perineum in this case were produced by the same cause, to wit, the *maladroit* use of forceps, perhaps when they slipped, as the patient states they did seven or eight times, producing great pain and suffering at the time, their edge coming in contact with the tense perineum with considerable force while traction was being made, or it may have been made in a line with the axis of the superior strait of the pelvis.

I suggested to Mr. H. the advisability of calling other members of the profession to see the case, as it was one of considerable interest, to which he readily assented, and A. H. Mann, M.D., of South Chicago,

J. E. Morrison, M.D., of Hyde Park, J. Ramsay Flood, M.D., Assistant Physician to the Woman's Hospital of the State of Illinois, and A. Reeves Jackson, M.D., Surgeon-in-Chief of the same institution, were called in consultation and made a careful examination of the case, and fully confirmed the views above expressed by myself as to the nature and probable cause of the existing lesions, and the results of treatment to be reasonably expected in the case.

I continued the treatment of Mrs. H. up to the time of her death, with results somewhat variable during this period.

For the first two months, a generally tonic and hygienic treatment, varied from time to time as circumstances required, was upon the whole found to be beneficial; the patient being able to sit up on an easy chair for a while each day of the last week of the time.

On March 24th, the condition of the patient became less favorable by reason of the supervention of enteritis, which continued, notwithstanding the remedies used to avert it, until April 10th, when she died.

I made a post-mortem examination of Mrs. H. on the following morning, with the assistance of Charles Adams, M.D., and J. E. Morrison, M.D., in the presence of Mr. H. and Dr. J. We found the small intestines extensively inflamed, and the transverse portion of the duodenum prominently so. The mesenteric glands and glands of Peyer, with the right kidney, were also inflamed. We found the uterus by the lower two-thirds of its posterior face firmly attached by adhesions to contiguous tissues, and that portion of its body below its peritoneal covering soft and friable, so that in the effort to separate the above named adhesions with the fingers, the superior third and anterior face of the body of the womb readily separated from the adherent portions.

We found the bladder of about half the normal size, with fistulous opening in its base of one by two inches in diameter.

UPON SOME POINTS IN THE ETIOLOGY OF
HEREDITARY SYPHILIS.

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MR. PRESIDENT AND GENTLEMEN OF THE ASSOCIATION:

In this evening's paper I beg to present, more to elicit a discussion of your views than to offer any original or startling theory, a criticism on the opinion which still obtains among a large part of the medical profession, that syphilis is transmissible to the ovum in utero by the semen of the male parent, without the mother becoming infected either by the husband or by the ovum.

This question has been for a long time a moot point among medical men, and indeed seems as far from settlement now, as it was when enunciated by Cullerier in 1854 before the Société de Chirurgie de Paris, if we regard the papers and monographs written by the upholders of both sides of the argument—those for and those against.

In 1871 and 1873, I wrote two papers criticising and weighing the evidence offered by both sides, and showing why the testimony given in favor of this mode of transmission was defective and unworthy of acceptance. Let me say this at the outset, that those who accept this paternal transmission theory, and seek to prove its truth by cases, enter the race heavily weighted as regards their antagonists; all these latter have to prove is the good health of the mother and child, while the former have to prove: first, the undoubted existence of syphilis in the father and child; second, the non-existence of the disease in the mother, not only in the present but in the past and future; and third, to explain sundry anomalies and contradictions which the other side are not troubled with. Little wonder then, gentlemen, if the absolute proof be difficult to give.

* Read before the Medical Journal Association of the City of New York, May 26, 1876.

In the first place let us examine the question theoretically. Why is it unlikely that syphilis should exempt the mother and attack only the ovum? To do this properly we must explain what syphilis is and how it acts, at least as regards contagion. We believe it to be a disease which, during some of its stages, notably the earlier ones, is eminently contagious, so much so, that, given the proper conditions, it will be propagated to others who are free from the disease, without any respect of person, sex or age. The virus of syphilis has not yet been isolated, perhaps never will be, but by experiment we are in a position to say that similar symptoms will be induced in a non-syphilitic person by the mere fact of bringing in contact with the absorbents the secretions from the chancre (initial lesion), from mucous patches and the corpuscles of the blood during the first year, at least. The serum does not seem endowed with this property. The transmission by the secretions of other lesions is not yet proven; and infection by the natural excretions of the body, viz.: the tears, sweat, saliva, milk, etc., with but one exception, the semen, have been excluded as impossible. So that in order to accept this theory we must allow that a healthy mother can without danger to herself retain, and perhaps bring to full term, a diseased fœtus, and this child, the moment it comes into the world, becomes the centre of contagion for all non-syphilitic persons who may be unfortunate enough to get the blood or the secretions from the mucous patches of the child in contact with their absorbents, excepting the mother, who, wonderful to relate, escapes all contagion although she suckles the child herself—a fact noted by Mr. Abraham Colles, of Dublin, as early as 1837.

The first point, viz., why the mother should escape the disease while the fœtus is yet in utero, is believed to be explained in this manner, and I quote from the latest writer on the subject, M. Kassowitz, of Vienna, a firm believer in this theory, and whose experience in the

repeated immunity of the mother has been so fortunate that, were it borne out by general experience, it would almost settle the point in dispute. He writes: "There is every probability from the facts just detailed, for believing that the syphilitic poison is not transmitted from the mother to the foetus, provided that at the time of conception the mother was not syphilitic, nor does the child, rendered syphilitic by the father's semen, transmit the disease to the healthy mother, and moreover this virus does not pass through the walls of the vessels between the circulatory apparatus of the mother and foetus." Thus we see the endosmosis and exosmosis of the virus is denied, and if this theory be the correct one, how can we explain the absorption of the virus in acquired disease? If I understand it correctly, the poison is absorbed from the point of entrance into the mass of the blood. How can this be effected but by endosmose; by the blood carried elsewhere, and deposited in the tissues by exosmose; is it not? There is, then, continued endosmosis and exosmosis going on, else the virus would remain encysted and could work no mischief. Then, again, look at it from the hereditary point of view: syphilitic women give birth to syphilitic babies, where, so far as we know, the husband is free from the disease; if the virus did not transude through the walls of the maternal blood-vessels to poison the foetal blood, where did the child get its disease? Let me give a case briefly: A woman married a man who contracted syphilis, by him had a child which showed unquestioned syphilis congenita; she herself meanwhile remained healthy, *i. e.*, showed no signs of syphilis. The husband died; she, still being free from syphilitic disease, married a man who was perfectly healthy, and four years after marriage has a syphilitic child. (VIDAL, *Gaz. d. Hop.*, 1841.)

Now how to explain it. The simplest and probably most correct answer would seem to be, the woman's immunity from syphilis was only apparent, she was probably diseased. It may be urged that the second hus-

band was diseased; the history, however, states explicitly that both were free from syphilis, and there is no good reason for accusing him more than her. If we admit the freedom from disease of these two persons, we are driven to admit that healthy, *i. e.*, non-syphilitic, persons can procreate a syphilitic child, a proposition so manifestly absurd as to need no comment.

In former papers, I have given reasons why physicians are likely to be deceived in investigating this question, partly from natural causes dependent upon the disease, and partly from the ignorance and deceit of the patients. It is unnecessary, therefore, to revert to them here, and in arguing against this view I shall confine myself to a consideration of the cases of M. Kassowitz, who is the latest exponent of the doctrine. He takes the records of the K. K. Findelhaus, in Vienna, from 1854 to 1868 (for 15 years,) and states that out of 400 cases of syphilitic children, in 122 the mothers were syphilitic, in 112 the condition of the mother was unknown (*mutter unbekannt*) and in 166 the mother was healthy. I have been unable to get at the sources of his facts to verify his statements, but allow me to point out one or two things in the table which strike me as curious, to say the least. In the first place, what is meant by saying that the condition of the mother is unknown (*mutter unbekannt*)? she must have been either ill or well, *i. e.*, showing signs of disease or free from them; if the former, the mother should be ranged under the head of "mother syphilitic;" if the latter, under the head of "mother healthy," or rather, what would be probably more correct, the healthy mothers should be put under the head of "*unbekannt*."

Again, as the record stands, it is decidedly opposed to the experience of other observers. Oewre, of Christiania, gives the results of 100 syphilitic children watched by him in the University Hospital at Christiania, and they stand: Mothers diseased, 93; in only 4 cases were symptoms absent, although in even these cases, M. Oewre says there was room for question. (OEWRE,

Aftryck ur Nordiskt Medicinskt Arkiv. Band V, No. 19.)

O.'s cases were one-quarter the number of Kassowitz'. Suppose we make them equal for purposes of comparison :

	No. of Syphilitic Children.	Mothers Syphilitic.	Mothers Unknown.	Mothers Sound.
KASSOWITZ.....	400	122	112	166
OEWRE.....	400	384	....	16

A very great difference, as you see. M. Kassowitz in his private practice relates 119 cases; of these, the connection between the disease and hereditary transmission was doubtful in 43, exclude them, and we have 76 cases, in 43 of which the mothers were entirely free from syphilis; in *twenty-three cases both parents*, and in ten the mother only was affected with syphilis.

To condense—

Total cases,	- - - - -	119
Doubtful,	- - - - -	43 — 76
Mother free from syphilis, in cases,	-	43
Both parents syphilitic,	“ - -	23
Mother alone diseased,	“ - -	10 — 76

K. bases the immunity of the mother upon careful examination, for the most part extending over several years, (*durch eine umsichtige und in dem allermeisten Fällen durch viele Jahre fortgesetzte Beobachtung.*) In this respect he has been more careful than others who have reported upon supposed cases of paternal transmission, but even his length of time is too short. To paraphrase the well-known saying, “Call no man happy till his death” into “Call no person free from syphilis until death,” in face of the positive evidence that we have against this theory, we may say of M. Kassowitz' cases

that he has not seen or known about the true history of these women.

Indeed we cannot be positive that syphilis will not reappear after many years latency, and I will only remind you of Fournier's case, reported by him in *L'Ecole de Méd.*, Aug. 30, 1875, and quoted in *Lyon Médicale* of Sept. 19, 1875, to show that it does. Seventeen years of latency did not protect the unfortunate patient (who, by the way, was a medical man) from a sudden explosion of nervous syphilis with death. It is for this reason I say, that even though no lesions are visible for four years, the length of time that some of K.'s cases were under inspection, that fact proves nothing, nor does it disprove the possible existence of syphilis.

Of these 43 cases where the mother was free from syphilis, M. Kassowitz gives the history of 10; of the 10, 5 of the mothers were under inspection for a time varying from one to four years without showing symptoms of disease; in the 5th case, the mother is merely spoken of as well (die Frau war und blieb ganz gesund), no history of examination or time she was under inspection; in No. 6, no mention of mother's condition after the birth of syphilitic child; in No. 7, the mother is mentioned as entirely healthy, nothing more; in No. 8, no mention of mother's condition; and of No. 10, I wish to speak a little more fully. It occurred in his private practice, and is headed—

“ADVANCED SYPHILIS IN THE HUSBAND, WIFE HEALTHY. AFTER THREE STILL-BIRTHS MERCURIAL TREATMENT OF THE MAN, BIRTH OF A HEALTHY CHILD. SUBSEQUENT TERTIARY MANIFESTATIONS IN THE FATHER.”

“A well-to-do citizen, formerly an officer, contracted primary syphilis in 1864, followed by secondary symptoms, and from which he apparently entirely recovered. In 1867, he married a young lady, 20 years of age, of good family.”

“At the end of 1867, she had a still-born boy at the

6th month ; in 1868, a still-born girl at the 7th month, and, 1869, a miscarriage at the 3rd month.

“Externally there was nothing visible upon these children. During the winter of 1872 and 1873, the husband was attacked with serpiginous ulcerations of the skin. He was treated by inunction and subsequently by the iodide of potassium by one of the first syphilographers of the city and his assistants (to whom I am indebted for the history of the father's syphilis), and in the early part of 1873, seemed entirely well. About this time the wife conceived for the fourth time, and in January, 1874, was brought to bed at full term of a healthy, unusually strong girl child. Shortly after birth, the child showed symptoms of dyspepsia (it had been artificially reared), came under my care, and from that time to the present has been under constant supervision. It has never shown a symptom of inherited syphilis. In the summer of 1873, the father went to the iodine baths at Hall, notwithstanding which he was attacked during the following winter with gummata of the skin and necrosis of the nasal and ethmoid bones. In the spring and summer of 1874, he was sent back to Hall, where he died in midsummer of the same year with the symptoms of miliary tuberculosis.”

“The wife who had never been informed of the nature of the husband's disease, and is to-day ignorant of the cause of her miscarriages, being pronounced by the attending physicians as healthy, was naturally never put upon an antisyphilitic treatment, and has for the past two years, during which I have had repeated opportunities for observing her, enjoyed the most perfect health.”

At the end of the narration of the history, the author exclaims, “this case also, by the birth of a healthy child, demonstrates in the most striking manner the freedom of the mother from syphilis,” to which I answer, Amen. But that is not the point ; the argument is, whether syphilis has not been conveyed to the ovum by

the semen, and in this case upon what does this rest? Upon three miscarriages without any syphilitic symptoms. I object to that as evidence; miscarriages occur from other causes than syphilis, and their occurrence *alone* is not sufficient to base a diagnosis of syphilis *per seminem*. And M. Kassowitz is evidently of the same opinion, for on p. 54, when discussing the means to be employed for the exclusion of error, he lays down three rules to be observed, the third of which reads: "The syphilis of the child must be evident from undoubted symptoms. Premature births, death in utero, a sickly constitution at the time of birth, speedy death without any preceding outbreak of syphilis, are not by any means sufficient for founding a diagnosis of syphilis in the child."

If we act upon this instruction how can we admit the existence of syphilis in any one but the father in the case just cited? The case must be thrown aside as far as proof is concerned; indeed, were it used at all it would rather tend to show that a syphilitic man can procreate a healthy child, whereas the opposite should obtain, if the paternal transmission theory be correct.

I mentioned in an earlier portion of the paper the curious fact, that mothers apparently free from syphilis are able to nurse their own babies which are syphilitic and eminently contagious, without contracting disease, where strange women performing similar acts, usually pay the penalty of their rashness. Kassowitz also acknowledges that he has never seen infection from such a cause, and then goes on to say: "It would be proper for those who regard every mother of children syphilitic by inheritance, as the subject of latent disease, even though she present no evidence of syphilis, to prove the correctness of their view by experimental inoculation." This very condition was fulfilled in one case by Caspary in the 4 Heft der Vierteljahrschrift für Dermatologie und Syphilis for 1875. Although this one case does not absolutely prove anything, inasmuch as the result may be

considered as coincidental, combined with other evidence it becomes strongly confirmatory. I shall be obliged to give the case in a somewhat condensed form for want of space and time.

Father. Undoubted syphilis ; primary lesion in 1872, several attacks of skin lesions ; obstinate iritis and various nervous symptoms.

Mother. Nothing which could be laid to syphilis, had been married for several years prior to husband's infection and had had healthy children. In 1874, became pregnant and aborted at third month.

Fœtus. At the third month ; umbilical cord entirely macerated ; of a dirty gray color ; that and the inner surface of the cavities of the body, together with the muscular tissues, were undergoing fatty degeneration. The placenta was in some places thick and fibrous ; in one part was soft and spongy—under the microscope it showed fatty degeneration.

The mother still showing nothing, Caspary persuaded her to be inoculated, which was done, "upon the left arm in four places with the secretion taken from condylomata lata, mixed with blood. The person from whom the secretion and blood were taken, was in the beginning of the eruptive stage of syphilis and had never been treated. The result was negative, and after waiting for six weeks without anything appearing, the woman was put upon treatment."

Here is a curious case : a woman apparently free from syphilis gives birth to a three months fœtus, which does not, it is true, present indubitable signs of syphilis. Were this all, the question might very properly be raised, are the mother and fœtus diseased ? but what shall we say, when we find that inoculation utterly fails upon the mother ? I believe we are taught that the only thing which gives immunity to acquired syphilis is a previous attack of the same disease. If this be true, we must conclude that this woman was syphilitic, notwithstanding her apparent good health, and this evidently was Caspary's belief also.

Interesting as the examination of such cases are, my time warns me that I cannot devote more space to this class, if I am to review the subject where syphilitic fathers have healthy children. Before doing so, however, let me give one case from the late Mr. Langston Parker's little work "*On the Mercurial Vapor Bath*," as it is peculiarly instructive.

"A young gentleman and lady married, with all the prospects of future happiness that fortune and apparent health could give. In due course the lady became pregnant, but miscarried. The same thing happened in her second and third pregnancies; a good deal of mental uneasiness was produced, and some suspicions arose. The fourth child was born alive, but at six weeks old had snuffling and the eyes became bad; condylomata also appeared about the arms. A neighboring physician of great local eminence was consulted, who said rather abruptly, 'The child is diseased.' The parents, as may naturally be supposed, were shocked and horrified beyond measure, the father having at a remote period before his marriage been affected with syphilis; but the mother had never exhibited the least symptom of the disease. He was put upon a course of blue pill and iodide of potassium; the mother at first was not treated. A fifth child was born, who at the end of the first month had symptoms of syphilis. The father was again only treated, and a sixth child was again born diseased. The mother was once more examined, but no trace of the disease could be found in the throat, vagina, uterus, or elsewhere. The patients were now placed under my care. I recommended that both should be treated by a full course of mercurial vapor, and that no intercourse should take place during that period. The seventh child was born healthy, and has remained so, and neither father nor mother have as yet exhibited any further symptoms of disease."

What I wish to call attention to in this case is, that though the father who was considered the sole cause of

the children's disease was repeatedly treated, the children persisted in being syphilitic contrary to what ought to have been the case, and it is not until the mother, who, mark you, was reputed free from syphilis, is subjected to antisymphilitic treatment, that this persistence is broken. If the disease came from the father alone, why was treatment in him so inefficacious? It is hardly explicable, unless we believe the mother's good health was only apparent, not real.

On turning to the other side of the question, where syphilitic fathers have healthy children, so long as the mothers escape infection, we are at once struck with the straight forwardness of the evidence and the regularity with which the phenomena occur. It is not a new opinion, broached for the first time by Cullerier, although he it was who in recent times has brought it more prominently forward. Hunter, as far back as 1786, in his *Treatise on the Venereal Disease*, writes: "Hence it has been supposed that the testicles and vesiculæ seminales may be affected by the disease; that the semen may become venereal, may communicate the disease to others, and after impregnation may even grow into a pocky child. But this is all without foundation." * * * *

These views, however, were not generally accepted, and Cullerier, in 1854, before the Société de Chirurgie of Paris, stated that he had met with cases which shook his faith in the belief that syphilitic fathers must have syphilitic children, and he furthermore expressed his opinion that so long as the mothers escaped infection the children would be born healthy, and that the paternal disease had no direct influence upon the children's health. He then gives two cases which I here give in a condensed form:

1. *Father.* Indurated chancre, mucous patches of the anus, ulceration of the mouth, impetigo of the scalp, alopecia and cervical adenitis. After 15 days treatment, salivation. Notwithstanding all this, he married.

Mother. Showed no symptoms of syphilis either then or afterwards.

Child. Entirely free from syphilis. Age at time of reporting case, 18 years. Two children born later, also healthy.

2. *Father.* Indurated chancre six months before marriage; subsequent symptoms: roseola, cervical adenitis, and trouble in throat. During this condition of the husband the wife became pregnant.

Wife. Never showed symptoms of syphilis.

Child. The same as mother. Age 15 years.

M. Notta in 1860, published in the *Archives Générales de Médecine* his observations with the results, which amount to 11 in all. Of this number eight of the mothers were not infected; the number of children born to these eight mothers amounted to 15: every one of these 15 children was born healthy, and their ages at the time of reporting the cases, ranged from seven months for the youngest to 12 years for the eldest. Three mothers are left to account for: to these three, five children were born: the mothers were all syphilitic, and so were all the children but one, which died at the sixth month of intra-uterine life.

M. Charrier follows in the same journal with seven cases: in five of these, the mothers were entirely free from syphilis; the number of children born were nine, and all were healthy. The ages of these children ranged from eight months to six years. Of the remaining two cases, the mothers were infected; the number of children was five; one died a month after birth syphilitic, two were miscarriages, one at the fourth, the other at the seventh month, the latter with mucous patches at the anus, and two were abortions at the third month, both the fœtus covered with copper-colored spots.

I need hardly mention that in all these cases the fathers were unquestionably syphilitic.

Now let me call your attention to one case, the second of M. Charrier's list. The man had a wife and a mistress.

Husband. Palmar syphilide.

Wife. Mucous patches of the anus, with subsequent lesions not detailed.

Mistress. Perfectly healthy—not the slightest signs of syphilis.

Children, (by the wife). One born healthy. Twenty days later; mucous patches, emaciation. Death one month after birth. This was in 1855. In 1856, a miscarriage at the fourth month, and again in 1858, at the seventh month. In this latter the child had mucous patches at the anus.

Children, (by the mistress). One, which never showed the least sign of syphilis: age, three years. This birth occurred within fifteen days of the wife's accouchement in 1858.

Objection may be raised as to this last child really being the man's: M. Charrier also considers this objection, and writes, "Mais j'ai à répondre que cet enfant ressemble en tout point à son père et qu'il a comme lui une conformation toute particulière des poutres, que les enfants légitimes avaient également présentés."

Diday, of Lyons, also gives a case:

Father. Undoubtedly syphilitic.

Mother. Perfectly healthy.

Child. Syphilitic? Oh no! Never showed the faintest sign of syphilis, although it was two years old at the time of reporting the case.

Mireur also gives two cases equally conclusive, one of them so apt and to the point that I will give it in detail.

"In January, 1863, M. C., employed in a government office, contracted an indurated chancre situated in the balano-preputial furrow, which was speedily followed by a double inguinal adenitis. By the advice of his physician, M. C. began mercurial treatment at once. This was followed for five weeks, when secondary symptoms supervened: a papulo-macular erythema, ulcerations of the throat, and impetigo capitis. In consequence of the energetic treatment to which the patient was subjected, one lasting for over four months, all the constitutional symptoms disappeared.

"Nothing having appeared up to December of the same

year, M. C. believed himself to be entirely cured. Notwithstanding the advice of the surgeon who attended him, M. C. determined to carry out a project of marriage which he had had in mind for some time.

"Immediately after marriage, Mme. C. became pregnant. In October, 1864, Mme. C. was brought to bed of a very fine boy, perfectly healthy, and of a good constitution.

"This child, the image of his father, grew up and was perfectly healthy to the age of two years. Towards the end of 1836, M. C., who retained a few vague souvenirs of his former disease, and who was charmed with the admirable health of his boy, had on the anterior portion of the lower lip, a slight erosion. As it remained perfectly indolent he thought nothing of it, and continued to kiss his child just the same.

"A short time after, the child showed upon his lip an erosion with a depressed surface, of a livid tint, with a remarkably indurated base, one centimètre in diameter. There was no doubt of its being an infecting chancre. Indeed, a short time after, a maxillary adenitis, with roseola syphilitica and extensive mucous patches of the anus, developed themselves."

Comment is scarcely necessary. If we accept the old theory this child should have been syphilitic and therefore not obnoxious to the action of the virus—but what do we find? Born healthy and remaining so up to two years of age, notwithstanding his father's syphilis, he becomes subsequently the subject of acquired syphilis.

Mireur's second case is briefly this:

Father. Primary lesion. Erythema syph. and ulcerations of the throat.

Mother. Never syphilitic. Strong and well.

Child. Never syphilitic—age 13 years.

Father subsequently had other syphilitic symptoms.

Oewre, of Christiania, has also presented several facts bearing on this question. In 1872, he gave the history of 24 fathers, all of whom were syphilitic. These 24

fathers have 42 children: not one syphilitic. In 1873 these numbers became: 29 fathers, 55 children, same results, not a syphilitic child.

As personal experience is always the most convincing to any to whom it occurs, allow me, in concluding this paper, to present three cases which have come under my personal supervision.

The first one occurred in the person of a friend, a college though not a class mate, who contracted syphilis. He was under my care for mucous patches of the tongue and throat, and occasional papular eruptions of the skin. Under treatment, he seemingly recovered and married. His first child was born abroad, and within a few months after birth died of a bronchial affection, without showing any symptoms of infantile syphilis. His statement is, that the attending physician upon being told of his previous syphilis, inclined to attribute the cause of the child's death to that. He was not sensible of having had, since he had been under treatment, any lesion which could be referred to syphilis, nor did he think his wife had.

Upon their return to this country Mrs. X. became pregnant and he wished me to take charge. I examined both carefully; he presented no symptoms. Mrs. X. had always enjoyed good health with the exception of being subject to pharyngitis and chronic inflammation of the middle ear since her girlhood. She presented nothing either from history or examination except a few irritated granular spots in the throat, referable more to pharyngitis, I thought, than anything else. As the husband was extremely anxious, and naturally desirous of taking all precautions, the wife during the period of gestation was placed upon a mild mercurial course. The child was carried to full time and born sound and healthy, weighing between seven and eight pounds. This girl was for some months under observation, but no signs of congenital syphilis were seen. I had occasion to see her four months ago and found her a stout, robust child, four years of age, without a symptom of syphilis, and I am told

she has never shown any. The husband during the wife's pregnancy had one or two little mucous patches(?) on the gums and end of the tongue, which disappeared on cessation from smoking and local use of the sulphate of copper. Neither then nor subsequently had he been placed upon mercurial treatment: purposely so.

After confinement the wife's treatment was discontinued; she was kept under observation; nothing was found in either herself or the child.

The family moved out of town, and two years later, no treatment having been pursued meantime, the wife again became pregnant. This third child I saw also four months ago, a fine chubby girl two years of age, showed nothing syphilitic, nor did the mother. The father I did not see, so am unable to tell if he has had any symptoms of his former trouble.

It occurred to me, if the father's semen was at fault, why were the children born healthy? He had syphilis, showed some signs of it during his wife's second pregnancy, and was not treated. From the evidence, I am forced to conclude that mother and children both escaped infection, notwithstanding his disease.

The second case was an ex-officer in the regular army whom I treated for chancre, erythema and mucous patches of the throat, mouth and tongue. After several relapses he married; and his wife was delivered of a fine boy whom I carefully watched for two years. In neither mother nor boy could I ever discover symptoms of syphilis, neither was there any history. During the wife's pregnancy and after the boy's birth, the father was under my care for repeated attacks of mucous patches of the tongue and mouth, and a desquamating papulo-erythematous eruption on the palms of the hands.

The third case was a man treated by me for erythema maculatum syph. and repeated attacks of mucous patches of the throat and tongue. He married, and in time and in due time his wife became pregnant and was delivered of a female child, who, when I first saw it, was

three years of age. Neither it nor the mother have presented the least trace or sign of syphilis.

After his wife's confinement the father came under my care for an ulcerating tubercle of the leg, which healed promptly under antisiphilitic treatment.

I have endeavored in the foregoing to give a fair idea of how this question stands, a question very difficult of solution. I trust, however, that the criticisms elicited here to-night by you, gentlemen, will throw some light upon this knotty and important problem.

16 W. 32ND ST., NEW YORK.

Reports of Societies.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting, Dec. 6, 1875.

(Reported by D. C. STILLIANS, M.D.)

The President, Dr. Wm. E. Clark, occupied the chair.

Dr. T. D. Fitch reported a case of retro-versio uteri cured by restoration, mechanical support and pregnancy.

Mrs. R., aged twenty-two years, married five years, mother of one child aged two years (living), since the birth of which she has never conceived—never had an abortion.

Patient began to menstruate at the age of sixteen. Always enjoyed robust health up to the time of her only confinement, when she was attended by a midwife, and rose from her bed in four days. She states that she has "never seen a well day since." From personal observation I can verify the fact of her previous good health.

During the time which has elapsed since her confinement, she has suffered from the following symptoms: Constant pain in the lumbo-sacral region, with a sense of bearing down and weight in the pelvic organs; con-

stant and obstinate constipation, with occasional attacks of rectal tenesmus; pain extending down the thighs, rendering locomotion difficult; almost constant vesical tenesmus; a frequent desire to micturate, attended with more or less pain; dyspepsia, with acid eructations, anorexia, nausea, and sometimes vomiting, with consequent progressive emaciation.

Menstruation has been somewhat irregular, both as to time and character—sometimes occurring every twenty days, sometimes twenty-eight days, the former time the rule, however. She has been menorrhagic, the discharge being excessive and partially coagulated. The epochs were usually attended with evidences of pathological congestion, such as pain and fever. Leucorrhœa of a muco-purulent character has been constantly present, though not accompanied by profuseness of discharge.

On the 17th of March, 1871, the physical signs were as follows:

In the dorsal decubitus, (which I prefer) the touch revealed a large ostium vaginæ, the urethra thickened and greatly hypertrophied, and a round, smooth and hard body in the axis and at the distal extremity of the vagina. Not finding the cervix, and presuming this body to be the uterus, my finger was passed along the anterior wall of the vagina (posterior wall of the uterus), and the cervix was felt immediately behind the pubic arch, and impinging strongly on the basfond of the bladder and the urethra.

The uterus was sensitive to pressure, and movable, indicating the absence of adhesions.

On conjoined manipulation, the body of the uterus was found in abnormal position. The speculum revealed eversion of the labia uteri, with granular erosion and patulous os.

To the sound there was hyperæsthesia of the cervical canal. It passed in a downward and backward direction to the extent of $3\frac{1}{2}$ inches, some pain being elicited by pressure upon the fundus. No blood followed its

removal, and the pain being transient, no metritis or endometritis was supposed to exist.

Diagnosis.—Retro-version, with chronic endo-cervicitis.

Treatment.—The indications were to restore the uterus to its normal position, and retain it there, at the same time to administer such remedies as would relieve the gastric trouble, and to employ such applications as would subdue the endocervicitis and heal the erosions. Believing in the primary restoration of the uterus, and that then, without material treatment, the evil results of a malposition will cease, I take this to be the first step in the course of the treatment. If we should adopt the plan of removing the first factor in the series of causes and effects, the subinvolution should be first treated. But it would be impossible to cure this hypertrophy while the circulation is so embarrassed by the distortion of the blood-vessels supplying the parts. In the majority of cases, on restoring the organ and thereby relieving the embarrassed circulation, the congestion and enlargement, together with the other evil results, disappear spontaneously. I therefore touched the granular surface of the cervix and the cervical canal with a saturated solution of iodine in pure creosote, and introduced a cotton tampon saturated with a solution of tannic acid in pure glycerine, in the proportion of 3 iij of the acid to 3 j of glycerine, for the purpose of relieving irritation, and hardening and accustoming the parts to the presence of a foreign body.

A pill containing two grains of the sulphate of quinine with one of the sulphate of iron, was also given before each meal, and a powder containing eight grains of the subnitrate of bismuth, and four of pepsine, was ordered after each meal.

In four days the tampon was removed, and the parts thoroughly washed with warm water by means of the uterine Anssing syringe; another tampon was then introduced. The patient expressed herself as feeling some-

what improved, in two days more, the tampon giving her great comfort and support; when it was removed and the parts washed as before, there was no apparent soreness or tenderness. The dislocation was then reduced by manipulation with the patient in the lateral decubitus (Sims'). The index finger was introduced into the vagina, pressing it against the body of the uterus, as near the fundus as possible, carrying it upward and forward in the arc of its descent. When carried as high as possible, it was held in this position for a few minutes, so as to give time to change the pressure from this point to the anterior lip of the cervix, which was carried downward and backward in the concavity of the sacrum higher up, if possible, than its normal position. It was held for two or three minutes that it might become accustomed to its new place, thus preventing its return before the pessary could be introduced. The latter was a modification of Hodges' horse shoe pessary, selected on account of the hypertrophied condition of the urethra. Its arms were partially straightened on account of the fullness of the post vaginal region. No discomfort was experienced by the patient on arising, and in fact there was no consciousness of the presence of a foreign body in the vagina.

A solution was ordered for vaginal injection, to be used once or twice daily, in order to keep the parts clean and prevent accumulation of the secretions behind the instrument, thus endangering irritation, ulceration, etc.

Patient expressed herself as much improved in every particular, six days afterward. To the erosions and cervical canal the iodo-creosote mixture was again applied.

April 4. Improvement continues in every particular. No inconvenience from pessary after removal. The points upon which it had pressed were found entirely healthy. It was reintroduced after applying the creosote mixture.

The patient was treated in the same manner on the 14th,

21st, and 28th, and May 3rd, and 23rd. At this last date it was found that she had just passed her menstrual period without the flow. Her improvement was so marked that I correctly supposed her to be pregnant. The pessary was worn and the injections continued till the end of the 3rd month, when it was removed, but the patient returned next day, complaining of the loss of its support, and a sensation of weakness. The pessary was again introduced and allowed to remain till the middle of the 5th month, when it was finally removed. She was at last delivered of a healthy boy.

In order that involution might be well completed before she arose from bed, I kept her in the recumbent position for three weeks, when she arose without the recurrence of the displacement. She has now remained free from uterine disease for a period of four and a half years.

The subject was discussed by Drs. Quine, Foster, and others.

A partial Report of the Section on Practical Medicine—Diseases of the Chest—was presented by E. Fletcher Ingals, M.D., as follows:

Since the appointment of this Section there has been no great advance in that part of practical medicine relating to diseases of the chest. Our theories regarding their causes and pathology have experienced no marked alteration; our methods of diagnosis have not been noticeably improved, and the elements of prognosis remain unchanged.

In treatment there has been some advancement, not so much in the discovery of new methods, as in the more general application of old ones.

I have observed in one instance an anomalous sign, in connection with consolidation of the lung, consisting of numerous fine blowing or whistling sounds resembling sibilant rales; these were heard over the apex of the right lung, and were at first supposed to be fine bronchial rales, but directly their rhythm pointed to their source;

for they occurred not only during inspiration and expiration but also in the period of rest following the respiratory act. They were, in fact, independent of the air in the bronchial tubes and were synchronous with the contraction of the heart, as was easily demonstrated by directing the patient to hold his breath. Though no other auscultatory signs were present at the time, I believed this to be the result of pressure, by tuberculous deposits, upon several small arteries within the lung. A few weeks after my examination, the patient died of some intercurrent affection and I had an opportunity of verifying my diagnosis by a post-mortem examination, which revealed tuberculous consolidation in the apex of the right lung.

Surgeons enjoin rest in the treatment of any acutely inflamed organ; but until lately physicians have too much disregarded this rule in treating pulmonary affections. In pleuritis and pneumonia much benefit will be effected by keeping the patient quiet, diminishing as much as possible, consistently with good aeration of the blood, the frequency of respiration, and by limiting movements of the affected side. The same course of treatment will often be beneficial in pleurodynia, pneumothorax and emphysema; and sometimes in phthisis. In the acute diseases mentioned, whether the inflammation be trifling or considerable, the patient should be put to bed and kept quiet until he recovers. Coughing should generally be checked, all exertion prevented, talking prohibited; indeed, the patient must do nothing to waste breath.

Respiratory movements may be restrained to a considerable extent by the patient's voluntary efforts, if his attention is only drawn to the matter. He should be furnished good air and in some cases, especially of pneumonia and bronchitis, it is best saturated with watery vapor.

The room should be kept well ventilated and at a moderately high temperature. Where moisture is desired,

steam may be introduced into the apartment. Breathing compressed air has been found to lessen the frequency of respiration ; it is, therefore, recommended in some cases, though unfortunately it can not often be employed for want of conveniences. It may be that in pleuritis and pneumonia, benefit would be derived from the respiration of pure oxygen, because of the longer rest which would thereby be afforded the inflamed organ.

By external appliances we may restrict the movements of the affected side, with the effect of greatly relieving the patient's sufferings, and, doubtless, shortening the course of the disease.

In simple pleurisy and pneumonia we may accomplish this end by adhesive plaster applied as directed by Dr. F. T. Roberts, in the *London Practitioner*. His method is, to apply two or three layers as follows: "The first strip is laid on obliquely in the direction of the ribs ; the second across the course of the ribs ; the third in the direction of the first, about half overlapping it ; the fourth as the second ; and so on, until the entire side is covered. A strip is also passed over the shoulder, which is kept down by another fixed round the side across its ends." The transverse strips should reach from the spine to the mesian line in front, and all should be applied if possible during full expiration. It is sometimes desirable to fix the chest in inflexible dressings, as in pneumothorax and fractures of the ribs ; for this we may employ plaster of Paris or any similar dressing such as surgeons use in making immovable splints. In emphysema with bulging chest walls, I would expect benefit from a nicely fitting elastic jacket ; which would in some measure compensate for the loss of elasticity in the lungs. Unless too great pressure were made, this appliance could not harm the thoracic walls ; it would rather, by its resistance, induce hypertrophy of the inspiratory muscles, and by its elasticity aid the expiratory, in their difficult task of expelling vitiated air from the lungs.

It seems reasonable to hope that this appliance would ultimately reduce the emphysematous chest in size, and greatly facilitate the patient's breathing. At first the pressure must be slight, but as the muscles become stronger it may gradually be increased. The jacket should be made to lace both in front and behind, so that the pressure may be regulated at will.

Paracentesis-thoracis has been practiced since the days of Hippocrates, but its popularity has been greatly increased by the recent introduction of improved aspirators. This operation in olden times was the *dernier ressort*; but through the teachings of Trousseau, Bowditch, Gairdner and others it became the common practice to employ the trochar as soon as other remedies had failed to produce absorption. With recent instruments the operation has become so easy, both for physician and patient, that we are reluctant to await even the action of diuretics and purgatives, and are almost tempted to perform paracentesis without allowing nature an opportunity to remove the fluid. However, this like all other extremes should be avoided, and the operation confined to those cases which are not curable by simpler remedies. Where a fair trial of diuretics and purgatives has been unavailing, and in all cases in which the fluid occasions urgent dyspnoea, the operation should be unhesitatingly performed. The aspirator may be employed with comparative safety in removing fluid from the pericardial sac, but we must not forget that physicians of large experience have punctured a dilated heart, in consequence of a mistake in diagnosing this condition.

Experiments have been made with the aspirator in treating pulmonary cavities. The cavities were punctured through the chest wall, their contents withdrawn, and remedies injected calculated to alter their surfaces so as to promote the healing process; but, as might have been expected, these experiments have proven unsatisfactory. Even if the cavities could thus be induced to heal, it is questionable whether the procedure would often

be justifiable, in view of the danger from injury to the blood vessels, and of the possibility of establishing pneumothorax. When we remember that, in the majority of cases, pulmonary cavities result from a constitutional and not a local disease, we are surprised that good results could have been expected from this treatment.

I have recently seen a large aneurism of the abdominal aorta in which no murmur was present during the life of the patient. The tumor sprang from the anterior surface of the vessel between the diaphragm and celiac axis, and protruded in the left hypochondriac region. It had a forcible heaving impulse with each cardiac systole. Death occurred about thirty-six hours after rupture of the sac.

Hospitals.

ST. LUKE'S HOSPITAL, CHICAGO.

1. *Extensive Syphilitic Disease of the Vault of the Cranium; Removal of two pieces of bone in their entire thickness, the larger piece measuring four by three inches; Recovery.*

(Under the care of JNO. E. OWENS, M.D.)

Mrs. K., aged 40 years, contracted syphilis five years ago. She has been under supervision during the past year for syphilitic disease of the larynx, and pain in the skull. In September, 1875, I found two soft doughy swellings, on the top of the head, each being the size of a silver quarter. Incisions having been made in each of these, the probe came in contact with denuded and roughened bone. The scalp was separated from the latter to the extent of several inches in every direction around these doughy swellings.

The diseased surface, which furnished a free discharge, had by means of the openings, proper drainage. The part was very offensive, requiring a liberal allowance of carbolized water. These two openings in the scalp subsequently enlarged, the one being 2 x 2 inches, two-thirds of which was to the right of the sagittal suture, and in close relation to the coronal suture; the other being 2 x $\frac{3}{4}$ inches.

At the earliest moment that the dead bone could be moved with a probe (Feb. 1, 1876), an incision was made across the scalp, from one of the openings above mentioned to the other, and the patient relieved of the offensive mass.

A cushion of soft cheesy matter covered the under surface of the roughened dead bone removed, thus affording some protection to the dura mater and the brain. The larger bone removed measured 4 x 3 inches; the other, 2 x 1. The opening in the skull, of course, corresponding in size and shape to the last bone, reached from a point $\frac{3}{4}$ inch on the left of the sagittal suture, $3\frac{1}{4}$ inches to its right side. The long diameter prolonged touched the left parietal protuberance and the outer canthus of right eye. Previous to the operation the patient had been a great sufferer in consequence of pain in the skull.

The medical treatment consisted for the most part of iodide of potassium and cod-liver oil. The larynx for months has been enlarged and stony. The patient could not speak above a whisper for a long time. The voice has not regained its natural tone, being more or less of a bleating quality. Sutures were used for the incised wounds, the openings in the scalp were filled with carbolized lint, a wad of oakum applied over all, and the part supported by moderate and diffused pressure. The frequency of the washings grew less as the discharge diminished and became less offensive.

No untoward symptoms supervening, the patient was permitted to get up at the expiration of 12 days. During this time she improved rapidly in general health, gaining both flesh and color.

Feb. 21st. Patient discharged.

April 1st. Wounds entirely healed.

Although the tissues that have filled in and closed the opening in the skull are very dense and firm, the pulsations in the brain are both readily felt and seen.

2. *Tracheotomy in Croup; Recovery.*

March 8th. I was called to see a little boy, aged six years, that was said to be dying. He "caught cold," Feb. 27th; began to breathe with difficulty, March 5th; and to have croupy cough, March 7th, with increasing dyspnoea. Paroxysms of difficulty of breathing supervened, exciting the alarm of the friends and rendering the case very distressing. Perspiration covered the forehead, upper lip and chin; the whole face wore a purple

hue; pulse frequent; lungs normal; patient had a fair amount of strength.

No treatment had been used so far as could be learned, except the employment of the usual useless domestic remedies, so called. Deeming this a case where prompt relief to the breathing was demanded, I had the patient wrapped in a blanket and carried to the hospital, only a few doors distant, where, chloroform having been administered, the trachea was at once opened above the isthmus. A few detached pieces of false membrane were removed, and the tube introduced. The operation was attended by almost immediate relief. The first canula introduced, being too much curved, impinged against the anterior wall of the trachea, and had to be laid aside after several days. The bivalve canula is occasionally useful where there is difficulty in placing the instrument. It is, however, too likely to injure the lining of the trachea, and this danger increases with the frequency of the withdrawal of the inner tube. Whether one should arrest all hæmorrhage previous to opening the trachea, depends upon the urgency of the symptoms.

The operation is of but little use, unless some *competent* person is at hand to keep the tube clear. Dr. Hutchinson, the resident, saved this patient's life many times. An example: A paroxysm of dyspnœa came on; the inner tube was removed and cleansed in scalding water; dyspnœa increased; nothing in view obstructing the outer tube, and nothing could be wiped away; dyspnœa increasing to an alarming degree; inner tube replaced; no relief; both tubes removed; patient seemed to be almost dead; a drop or two of cold water into the wound excited a paroxysm of coughing, some inspissated mucus was expelled and the patient revived.

The medical treatment consisted of ferruginous tonics and an occasional anodyne. The patient found much comfort from the use of the steam atomizer, which played upon the wound.

March 15th. Patient able to speak, to blow and to whistle.

March 16th. Tube removed.

March 19th. Allowed to get up.

March 20th. Air does not pass from the wound.

March 29th. Patient discharged, well.

Summary of Progress in the Medical Sciences.

I. OBSTETRICS.

1. *Prophylactic Measures against Puerperal Fever.* BISCHOFF. (Correspond. *Bl. f. Schweizer Aerzte; Allg. Med. Central Ztg.*, 13, 1876.)

Prof. Bischoff, of Basil, considers puerperal fever as a traumatic fever which is very changeable in its symptoms. No puerperal fever without lesion and infection. And the usual locality of infection, he thinks, is not the placental site but the cervical canal, and especially the external os uteri; the frequent lacerations at these places, as also the lesions at the site of the urethral orifice, during the act of parturition, must be looked at as the usual starting points for the puerperal fever. The infection sometimes is occasioned by foul amniotic fluid or by the lochia rendered septic by decomposed coagula, shreds of the amnion or pieces of the placenta. But more frequently the septic virus is introduced from without by the unclean instruments or hands, or even by the entrance of foul air. Besides, the professor recognizes in some persons a greater predisposition to a local infection of wounds.

B.'s safeguard against puerperal fever is carbolic acid, which after a faithful trial of more than seven years he has good reasons to recommend most heartily. He employs it in a regular antiseptic treatment just as surgeons do in operative cases. His aim being to remove all noxious matter before the genitals are wounded, and to prevent any infectious matter from entering these parts after they have received some lesion. Prof. B. enforced the following plan of antiseptic treatment in his lying-in hospital at Basil: At the commencement of labor pains the woman receives a bath and a vaginal injection of a lukewarm aqueous solution of carbolic acid (strength two per cent.) And these injections are repeated every two hours in all cases of protracted labor, of artificial premature labor, and of dead fetus. Before making an exploration or operation the hands and instruments must be washed in a three per cent. solution of carbolic acid and lubricated with a carbolized glycerine ointment, or a carbolized oil containing 10 per cent. of carbolic acid. Immediately after the delivery the external parts are examined and all wounded places are touched with the carbolized oil. Lacerated wounds of the mucous membrane of the vagina, and those frequent, though superficial, rents near the orifice of the urethra, are then united at once by means of fine catgut sutures; larger lacerations of the perineum are closed by silver wire, and these sutures are left undisturbed until the woman can get up, *i. e.*, for two weeks. And it is a very rare thing, then, not to find these lesions

healed by first intention. After all the wounds are closed, a pledget of charpie, well saturated with carbolized oil, is put in the introitus vaginae, to be renewed as often as it drops out, *i. e.*, after urinating and vaginal injections. Besides this, a second and larger pledget of carbolized charpie is laid over the external fissures or cuts. And in all cases, from six to twelve hours after delivery a vaginal injection with a two per cent. solution of carbolic acid is made, and afterward repeated two or three times daily; and if any coagula or pieces of the placenta are retained, the uterine cavity is washed out also by injections of carbolized water. These injections have never occasioned any untoward symptoms or had any poisonous effect.

As to the effectiveness of his prophylactic treatment B. gives the following statistics, concerning which he states, that he could not get the nurses to strictly comply with his directions, until two years ago, when the sisters of charity were employed as nurses.

Time.	No. of confinements.	No. of deaths.	Per cent.	No. of puerp. fever.	Per cent.	Remarks.
1862 to 1867	514	33	6.4	116	22	Previous to antiseptic treatment.
1868	83	..	4.0	37	44.5	} Beginning of antiseptic treatment.
1869	109	..	6.4	41	37.6	
1870	80	0	0.0	13	22.3	} Better antiseptic treatment.
1871	139	2	1.4	31	22.3	
1872	171	4	2.9	42	24.5	} Perfect antiseptis under the sisters of charity.
1873	202	2	1.0	34	16.8	
1874	233	4	1.7	25	10.7	
1875	224	0	0.0	A few	....	

2. *Subacute Cystitis following Parturition.* Dr. W. L. RICHARDSON, of the Boston Lying-in Hospital. (*The Boston Med. and Surg. Jour.*, Feb. 3, 1876.)

This condition is not mentioned in the works on Obstetrics of to-day. The reporter details four cases observed during the past three years. He suggests the possibility of cases of subacute cystitis being mistaken for metritis or circumscribed peritonitis. In all four of the cases reported, more or less protracted pressure by the foetal head upon the bladder was exerted during the labor. In the severer cases—two out of the four—the invasion of the disease was announced by a chill; in one of these two cases, a relapse was initiated by a chill. Great dysuria in all cases was a marked feature and the symptom most complained of. Tenderness over the inferior abdomen was elicited upon pressure. Pain, nausea and vomiting were noticed in the severer cases. In all four of the cases there were mucus, pus, and, in only one case, blood, in the urine. The record of the pulse, temperature and breathing was singularly high in the evening, as compared with that in the morning. The temperature ran as high as 103° F., and the pulse as high as 124 beats per minute—these being the extremes noticed in either case. The case treated longest was under observation twenty-six days.

The only treatment adopted was poultices to relieve pain and tenderness; morphia, *per orem vel anum*, to quiet pain or dysuria; after subsidence of acute symptoms, the bladder was washed out with warm water or a weak solution of carbolic acid. In all cases the washing out was followed by a sudden subsidence of all the symptoms, that was very striking.

II. GYNECOLOGY.

1. On so-called "Ulcerations" of the Os Uteri. DR. CLIFTON E. WING.
(*Boston Med. & Surg. Journal.*)

This subject is treated with such crispness and vigor, in a paper read before the Norfolk District Medical Society, Jan. 11, 1876, that we cannot forbear making lengthy extracts from it.

What is commonly considered and treated as ulceration of the womb is not ulceration at all, but one of two conditions, both of which, once clearly understood, are simple enough. In the first condition, frequently found in its typical form in women who have not borne children, and where the cervix and os retain the normal shape, there is seen a red abrasion often entirely encircling the os; it is occasioned by the irritating discharge poured out by a uterus affected with catarrh, or, as is commonly said, endometritis. We all know how often comes a so-called cold in the head, with its accompanying discharge from the nose; the uterine mucous membrane is liable to a similar catarrhal discharge. The woman affected with a discharge from the nose removes it by the use of the handkerchief, and so prevents it from excoriating the upper lip and the edge of the nostril; if the discharge is still sufficiently irritating or excessive to cause some excoriation, perhaps the use of the handkerchief is supplemented by an application of cold cream or other unguent to the part. Now let the same woman, from, it may be, the same cause, have a uterine catarrh. She cannot keep the irritating discharge constantly removed from the surface of the cervix uteri, nor can she practically apply any unguent; and the end of the cervix in that woman is soon in the same condition as the upper lip and nostril of the little ragged boy who runs about the street on a wintry day, having no handkerchief to use and no cold cream to apply: namely, the epithelium is removed, and a raw, excoriated surface comes to view.

Catarrh of the uterus has generally become chronic before the patient applies to the physician, and the papillæ at the abraded spot, as a result of long-continued irritation, frequently have become much hypertrophied, and deceive the inexperienced eye into diagnosing granulations. Too often, additional irritation is caused by the physician, who, totally misunderstanding the case, happens to cure the "ulcer" by lunar caustic or his other "favorite application." What educated physician

would think of attacking the excoriated nostril and upper lip referred to by "burning out the 'ulcer,' " giving no attention to the catarrh, its cause? Why should we do the same thing in exactly the same condition in another part of the body? If the discharge be stopped by proper applications to the inner surface of the uterine cavity, the so-called "ulceration" will take care of itself; for you may depend upon it that if you are not more skillful than most physicians in making your application, enough will be spilled upon the excoriation outside to stimulate that part sufficiently.

The other condition mistaken for ulceration is "rupture of the cervix with eversion." It is important that this be understood correctly, as many able physicians, and specialists even, have failed entirely to recognize the real trouble or its proper treatment, and it explains those cases which have been described as "severe ulcerations which require active treatment," wherein the strongest acids and caustics, the actual cautery, and even amputation of the cervix, have been tried in misdirected attempts to bring about a return to a normal state. Dr. Emmet was the first to recognize and describe the true condition in this disease, and to invent and practice the operation for its radical cure. To him we are indebted for one of the most important steps which modern gynecology has taken in its march of improvement.

Rupture of the cervix uteri occurring in labor is generally thought to be rare, and to an extent sufficient to attract the attention of the accoucheur by symptoms is so, but it occurs in a less degree in a large proportion of childbirths. As pointed out by Dr. Emmet, if the rupture be anterior or posterior to the os, the side walls of the vagina tend to hold the torn surfaces together, so that union usually occurs: but if it takes place laterally from the os, the rupture tends to gape, the posterior lip being held back by resting against the posterior wall of the vagina, while the anterior lip shoves forward in the axis of the vagina. The condition is analogous to that of ectropium where by the rolling outward of the lid the bright-red conjunctiva is seen. Now let any physician who does not understand the condition examine with a speculum, and what does he see? Instead of the small, conical cervix which he has expected would fall readily into the end of his speculum, he finds a condition of things which startles him. With his largest speculum he cannot command a view of the whole cervix. The anterior and posterior lips, as he sees them spread out, while he thinks he is looking at their ends only, seem to him wonderfully hypertrophied. This appearance of hypertrophy, which is so nicely produced by eversion, may be demonstrated by any one by simply standing before a mirror and observing the lips in their usual position when the mouth is closed; then noticing the appearance produced by forcibly everting them, the upper lip being rolled up toward the nose and the lower lip being pulled down toward the chin; the apparent hypertrophy vanishes astonishingly when the lips are allowed to regain their normal position. The cervix soon becomes so flattened out that traces of a rupture are not visible to an untrained eye, and the observer sees what

he has no doubt is the external os, but what in reality is the opening of the canal at the level of the upper limit of the rupture. All about this opening he sees a large extent of red, raw-looking surface, nothing more nor less than the mucous membrane of the canal rolled outward as above explained, its bright color contrasting with that of the vagina and external surface of the cervix almost as markedly as does the color of the mucous membrane of the mouth with that of the skin; but as the external os is thought to be before the eye, the diagnosis of a hypertrophied cervix with ulcerations seems to be clear. Let any one evert the lips before a mirror as noted above, and see how readily the healthy red mucous membrane, with its little irregularities of surface might appear, to one *expecting* to see inflammation and ulceration, to be in such condition, and it is easy to understand how the physician who all his life has heard of ulcerations of the uterus is liable to be misled.

Moreover, this eversion of the mucous membrane is apt often enough to give rise to a catarrhal discharge from the canal, if this is not present already. Such a discharge will produce excoriation here more readily than when the cervix is in its normal shape. In the everted mucous membrane the glandulæ nabothi frequently become enlarged, and degenerate into cysts, some on the surface, others deeper; this is another condition which is mistaken for granulations.

The rupture may take place on one side only, and be small in extent, yet cause much rolling out. In old cases all traces of it are effaced by the flattening out of the cervix on the posterior wall of the vagina, and when seen, perhaps the mucous membrane, by the formation and bursting of the little cysts, or it may be by the applications it has received, has become hard and fibrous. The amount of eversion depends much upon the extent of the rupture at the external os. A rupture which is limited here but extends upward along the uterine canal will not cause much eversion, but will give an open, patulous canal, a condition often met with, and puzzling to one who does not understand its cause.

The only safe rule to follow is this: In case of a large cervix always examine to see if eversion be not present. In hypertrophy the cervix enlarges gradually towards the body; but, as is pointed out by Dr. Emmet, with eversion there is more or less of a neck above the everted parts, an approach to the shape of an inverted mushroom. The *practiced* finger can detect this. Try with tenacula, one on each lip, and see if they cannot be rolled inward; if there be eversion, and this be done skillfully, it will surprise any one seeing the operation for the first time to note how the great mass resolves itself into the typical conical cervix, and how on restoration of the mucous membrane to its normal place the "ulceration" disappears. Sims' speculum is here essential; the old round specula do not give room for the manipulation, and the valve specula, by distending the vagina with their branches, tend to hold the uterine lips apart.

Emmet's operation for the restoration of the cervix consists simply in refreshing the surfaces and bringing the parts together again, retaining them there by sutures until union has taken place. Of course, care is taken to leave the uterine canal intact. The operation is best done under ether, and the patient should lie quietly in bed for several days after the sutures are removed.

I think there has been more unintentional malpractice by physicians of the better class in such cases than in any other affection of the body. A short time ago I saw a patient who had been treated by a physician of good standing. He at first made applications of lunar caustic once a week; the "ulceration" proving rebellious, he came oftener and oftener, until the woman had a daily application for some weeks. The whole cervix was raw, bleeding on the slightest touch, while the physician was "fearful it was going to prove cancer." Dr. Emmet reports a similar case, and they are not very uncommon, for cancer is quite often suspected with this condition of eversion. With regard to applications, Dr. Emmet remarks: "The nitrate of silver in the solid form is in more common use, from its supposed mild action, than any other agent, yet from indiscriminate and too frequent use it has done more harm than any of the stronger caustics. It is not that I would so much deprecate its use in the hands of an expert, but, from its convenient form, it is too great a temptation for many who are the most ignorant to flatter themselves that they have mastered the art as a specialty when once in possession of a porte-caustique and speculum. This practice has become a scandal to the profession."* The stronger caustics in ignorant hands are of course worse. I have seen two cases within a year wherein there were cicatricial bands binding the cervix firmly to the vaginal wall and causing displacement, for which little could be done, and in both instances the only probable cause was the application of some caustic which had run down upon the vagina.

I would utter a caution against accepting as conclusive the statements, supported often by a report of cases, which now and then appear in the journals, that the most powerful caustics can be applied to the uterine canal up to the very fundus with wonderfully successful results and without danger. It should be remembered that the cases where this has been tried with disastrous effects never get into print. Many times when the operator thinks he has gone to the fundus he has not passed the inner os, as I have verified by observation.

As regards the choice of remedies I cannot do better than quote Dr. Emmet again: "In our selection we must use those calculated to do the least harm to the portion of the mucous membrane which may still be in a normal condition. Rare indeed is the necessity of applying, within the uterine canal, caustics, the cautery, or the strong mineral acids. It is true that these remedies act promptly, so far as to heal an erosion and to check all uterine discharge. But we cannot restore the

* Emmet, *Philosophy of Uterine Disease*, New York Medical Journal, July, 1874.

patient to health by so far changing the character of the mucous membrane as to leave it a mere cicatricial surface. Our ultimate success will be directly in proportion to the condition in which we leave this membrane, for we will need its healthy action in the after-treatment of the case. That individual cases escape with but little damage is only due to protection afforded by the secretions; yet the practice, as a rule, is disastrous enough to deprecate their use."*

Let me here point out a common error. A physician has a patient who has symptoms which he does not exactly understand, and he finally concludes to make a speculum examination; finding the cervix in the condition which we have been considering, and which he has always looked upon as ulceration, he fails to look further, thinking that he sees enough to account for all the suffering, when that which he has found may of itself be of no importance whatever. In this way I have known the worst affections of the uterus, the rectum, and the bladder overlooked. We all know of cases in which symptoms arising from disease of the most distant parts of the body have been foolishly referred to the same cause.

While decrying the ignorance which has so often led to such practice, let us not slight uterine affections. Many a uterine disease which would yield readily to treatment is neglected or not suspected, and the patient is allowed to fall unnecessarily into invalidism.

The close connection between certain cases of mental trouble and uterine disease cannot be overlooked with impunity. I do not refer to hysteria, which all know is commonly enough so associated, but to more serious affections—cases of melancholia, monomania, and the like. I have seen such patients get well at once, when seclusion in an asylum was apparently near at hand, by simply removing the source of irritation, some uterine disease. We must try to avoid both overestimating and undervaluing the importance of uterine affections.

III. THERAPEUTICS.

1. *Treatment of Rheumatic Fever with Salicylic Acid.* (Ed. *Times & Gaz.*, 1876.)

We extract the following details from a paper by Staff-Surgeon Stricker, in the *Berliner Klinische Wochenschrift* of January 3, 1876. For several months all the cases of acute rheumatism in which the local symptoms were strongly marked (fourteen in all) were treated with salicylic acid. The preparation used was, however, not the ordinary impure commercial acid, but one that by repeated crystallization had been rendered almost perfectly pure. Thus prepared it consists of shining

* Emmet, *Surgery of the Cervix*. New York. 1869.

white needles, which have no smell, and dissolve completely in water and alcohol so as to form a clear solution. This pure acid can be given internally in considerable doses without any of those unpleasant results which have followed the use of the commercial acid, which probably owes its caustic properties to the presence of other substances—for instance, carbolic acid. The pure acid only excites some dryness in the mucous membrane of the mouth and pharynx, followed by an increased secretion from their surfaces. This inconvenience can, however, be obviated by giving the acid in half-gramme or gramme doses every hour, in the form of powder, and enclosed in a capsule; and in the treatment of rheumatic fever the administration is continued until the joints which were previously affected can be moved without pain. To quote Dr. Stricker's words, "All the patients thus treated were not only relieved of their fever, but also of the local symptoms—*i. e.*, the swelling, redness, and especially the painfulness of their joints—within forty-eight hours; most of them even within a much shorter period." The largest quantity of pure salicylic acid which was found necessary to produce this effect was fifteen grammes, and the smallest five grammes; but that even larger quantities can be taken internally without injuring the digestive apparatus is proved by the fact that one patient actually took twenty-two grammes in the course of twelve hours through an excess of zeal on his own part; but, nevertheless, his tongue became clean and his appetite returned in the course of this vigorous drugging. As far as Dr. Stricker's observations go, the more acute the case the better the action of the acid. He finds it best to begin the treatment in the morning, for then its effects are generally so decided by the evening that it is unnecessary to disturb the patient's rest to give him his medicine. The general phenomena which were observed to follow large doses of the acid were copious perspiration, ringing in the ears, and slight deafness, and in two cases the patients became more than usually lively. Dr. Stricker does not pretend to express any opinion at present on the effect exerted by the acid on the cardiac complications of rheumatic fever. Most of his cases either had old valvular disease or else were suffering from a recent endocarditis at the time of their admission. The details of five cases are appended to Dr. Stricker's paper, and the temperature-sheets are given in graphic form in four of them, and we can only say that they confirm in a most striking manner what has been above stated as to the value of the salicylic treatment.

A further testimony in the same direction is that of Dr. L. Riess (*Berl. Klin. Wochenschrift*, December 20, 1875, "On the Internal Use of Salicylic Acid"). He speaks of the results obtained in acute rheumatism as unexpectedly favorable, and points out that the action of the salicylic acid must be more than purely symptomatic, since in some cases a single dose not only permanently reduced the temperature, but also was followed by general improvement in the patient's condition. We again remind our readers that the acid used must be CHEMICALLY PURE.

2. *The Indications for Quinine in Surgical Practice.* VERNEUIL.
(*Gaz. Méd., Med. Times & Gaz.*, 1876.)

M. Verneuil states that quinine may be beneficially employed in treating ataxic, neuropathic and septicæmic complications. 1. It is not necessary for the ataxic phenomena to be of a true intermittent type, for quinine exercises its regulative action when no palustral element exists. 2. It is especially valuable in combating neuropathic phenomena, and nowhere can its influence be better appreciated than in affections of the eye. M. Verneuil is in the habit of prescribing it after operations on this organ, and he has frequently obtained most remarkable results. 3. In septicæmic accidents the salutary action of quinine is beyond all doubt, and given in large doses it still constitutes the best agent we have to oppose to purulent infection. 4. As an antiseptic it appears to act in two modes—modifying and diminishing the formation of pus, and operating as a direct antiputrefactive—so that it is advantageously employed as a topical antiseptic. 5. Its surgical employment is especially indicated for women and children, who are more disposed than men and adults to ataxic and neuropathic accidents.

3. *Treatment of Epistaxis by the Internal Administration of Ergot.*
(*British Medical Journal.*)

Dr. George St. George, of Lisbon, observes that the treatment of epistaxis is often attended with great difficulty, especially in persons enfeebled by age. He has found ergot of use in cases where liquor ferri perchloridi, plugging, and other remedies had been tried without avail. The following is one of the cases he records. A weak anæmic woman, aged 55, had been suffering for three days from repeated and violent attacks of hæmorrhage from the nose, which had increased in both frequency and violence during the last twenty-four hours. The nostrils were first plugged with lint and cold water. Dr. St. George then tried plugging with lint dipped in liquor ferri perchloridi, but without avail, as the hæmorrhage continued. He then ordered her a mixture, each dose to contain fifteen minims, of liquid extract of ergot every quarter of an hour until the hæmorrhage ceased, and then to be continued every four hours for a day or two. In an hour and a half the bleeding had entirely ceased and never returned. He gives the details of two other cases successfully treated by the same means.

4. *Action of Jaborandin, or Chlorhydrate of Pilocarpine.* (*Centralblatt, f. d. Chirurgie*, No. 52, 1875.)

The alkaloid obtained from the summitates jaborandi (*pilocarpus pinnatus*), termed jaborandin, or, better, pilocarpin, has a more uniform action than the leaves themselves, and, according to Siredey, acts somewhat differently from them. The doses recommended by Dr. Dumas in his thesis are from half a grain to two grains, from which no injurious influ-

ence need be anticipated. The action on the salivary glands is the most marked, and commenced very soon after its administration, so that in the course of five hours a rapidly increasing, and then slowly diminishing, salivation took place, especially from the submaxillary glands. The total excretion of saliva in this period amounted to 755 grammes (11,657 grains, more than $1\frac{1}{2}$ lbs. avoird.). Copious sweating occurred one hour after the commencement of the salivation, which slowly diminished in the course of four hours. Biliary vomiting usually occurred, the urinary secretion was greatly diminished, the pulse was slowed, the temperature lowered, the pupil dilated. No therapeutic value has as yet been assigned to it.

5. *Therapeutic Value of Picrotoxine.* (*Gazette Médicale de Paris*, No. 51, 1875.)

According to recent researches, *picrotoxine* exerts a special action on the medulla spinalis and oblongata. M. Gubler has hence been led to employ it in a case of labio-glosso-pharyngeal disease, and obtained well-marked improvement after a few days. The patient, in fact, who, on admission, was only able to take liquid food, consumed the usual diet of the hospital; the salivation had disappeared, and speech had become more easy. Picrotoxine has been administered in doses of one milligramme (.01544 grain). At the point where the injections were made, small, hard, indolent tubercles, resembling syphilitic gummata, appeared, which slowly disappeared. This hyperplastic action of picrotoxine on the cellular tissue is, as M. Gubler observes, interesting to notice. M. Dujardin-Beaumetz has tried the effect of picrotoxine in epilepsy, beginning with smaller doses than the above, and attaining ultimately three milligrammes per diem. Here, too, prompt amelioration took place in the symptoms. The fits, which in the first instance occurred every day, only took place every second day, then became more and more rare, till they ultimately disappeared altogether. The patient quitted the hospital after two months, and had not again been seen, though he promised to return should the fits recur. This result does not, of course, demonstrate that the epilepsy was cured, but simply that an attack had been staved off for two months; but it suggests that further trials should be made with it. No results have been obtained from the employment of picrotoxine in paralysis agitans.

6. *Electricity, its Therapeutic Applications.* (*The Practitioner*, 1876.)

The electric force in all forms is a disturbing element, and is therefore unsuited to the conditions in which *rest* is the indication.

It may be assumed that this agent is inapplicable in all cases of recent or acute inflammation. After the subsidence of the acute symptoms, however, this agent may be beneficial. The same is true of friction and vibration. The appreciation of this principle will save some disappointments from the misapplication of the remedy.

Headache from acute inflammation or acute congestion will, according to this principle, be aggravated by electricity. A headache from inani-

tion or anæmia will be benefited, and sometimes instantly removed by electricity. A sympathetic headache will be removed by this agent when the sympathetic cause is removed.

A dyspeptic headache will generally prove intractable, because the gastric derangement will defy removal by this agent.

On the other hand, a headache dependent upon defective innervation in the sympathetic or ganglionic system, will disappear by the electric stimulation of the sympathetic ganglia. In this case it is not necessary to include the brain within the scope of the current.

In the chest "a stitch in the side," or any form of neuralgia is generally benefited, while a true pleurisy is made worse. In doubtful cases, therefore, the behavior of the agent may be made a means of diagnosis.

In the abdomen, constipation from sluggish muscular action and deficient intestinal secretion is benefited by this agent, while the same symptoms resulting from inflammatory action are only made more intense. The intestinal muscles paralyzed by inflammatory congestion are still more congested by the electric stimulus.

In the loins, the condition of lumbago is favorable for the beneficial action of this agent, while a deep-seated inflammation is unfavorable.

In the pelvis, especially in the female, the organs are benefited or injured, according as we comply with this principle, or neglect or misunderstand it.

A congestion dependent upon local muscular passiveness in the walls of the vessels ought to be benefited, while a true acute or recent inflammation will be aggravated. The practical appreciation of this agent should, upon this basis, be an aid to diagnosis.

Sciatica follows the rule of lumbago, while an inflammation of a nerve presents a condition unfavorable for the application of electricity.

An exception may be made in the apparent effects of a powerful galvanic current, which is capable of producing a benumbing effect, even in an inflammatory condition. In this case, the apparent benefit is temporary, the pain soon becoming as bad as before.

7. *The Action of Cold upon Milk and its Products.* TISSERAND. (*L'Union Méd.*, No. 18.)

Fresh cows' milk, submitted to different temperatures, immediately or soon after its withdrawal, presents the following peculiarities, if kept for 24 or 36 hours at the initial temperature (between 0° and 36° C.):

1. The rise of the cream is rapid in proportion as the temperature to which it is exposed approaches the zero point (C.)
2. The volume of cream obtained is greater, according as the milk is subjected to a lower temperature.
3. The butter yielded is more considerable, according as the temperature is reduced.
4. Finally, skim milk, butter and cheese are of better quality in the latter case.

Pasteur's experiments on the origin, alterations and favorable or unfavorable media of ferments, have an application here. It is probable that the energetic cooling arrests the evolution of the living organisms which constitute ferments, and prevents the alterations due to their presence. This treatment of milk produces effects analogous to those observed in the manufacture and preservation of ices and Vienna Beer, which is so remarkable for its quality.

These facts, at any rate, prove how erroneous are the commonly received ideas upon this subject, viz., that milk intended to furnish cream should be kept at a temperature of 12° or 13° C., and not lower.

IV. DERMATOLOGY AND SYPHILIS.

1. *Cerebral Syphilis, with Coma.* MERCIER. (*Archives Génér. de Méd.*, May, 1876.)

A large, well-formed man, 33 years old, with little facial color, closed eyes, no œdema of limbs nor emaciation, had 28 respirations to the minute, no cough and a stertorous respiration, due to mucus in the nasal and laryngeal fossæ, completely masking the vesicular murmur. Pulse, 62. Heart-sounds normal. Temp., 37.9° C.

The tongue was moist; belly supple and painless on pressure; urine neither albuminous nor saccharine; scanty, yellowish, diarrhœic, stools—bladder and rectum contents voided without consciousness.

The patient could be roused from this comatose condition only with difficulty. He could then understand questions and occasionally answered them in a few words. He complained of supra-orbital headache. He could not see those surrounding him. His pupils were dilated with slight irregularity, and feebly contracted under the influence of a strong light. The eyes were expressionless. He continually ground his teeth and could scarcely protrude the tongue, but swallowed the soup put into his mouth, some portion returning by the nose. There was also occasional pharyngeal cough with mucous expectoration. There was no paralysis, but no voluntary movement. There was some appreciation of pain, but he seemed indifferent to cold, heat and tickling.

Two small eschars surrounded by an erythematous patch were visible on the buttocks.

There was no delirium, hallucination, contracture, nor convulsion.

Previous health had been excellent, prior to six weeks before examination (date of onset), without scrofulous or rheumatic antecedents. Since the inauguration of the illness his principal symptoms had been: heaviness of the head, loss of power in the limbs, and diminution of visual sense. Cusco, with the ophthalmoscope, had recognized atrophy of the papillæ. Soon after, the coma supervened; and M. discovered three large rounded cicatrices—superficial, covered with small violaceous crusts—

highly characteristic of syphilis—upon the legs. There was also adenopathy of the neck and groin.

Recovery was complete—even to the restoration of vision—after the prolonged use of calomel and the iodide of potassium. While the improvement was in progress and his lesions of the skin disappearing, he stated that three years before he had suffered from genital chancre, followed in due course by roseola and mucous patches of the mouth, throat and anus. He had also had osteocopic pains.

2. *Cerebral Syphilis.* WOOD. (*Phil. Med. Times*, Feb. 19, 1876.)

Non-specific basal meningitis and basal cerebral tumors are very rare in non-tuberculous adults. Upon this is dependent the fact that slowly developed paralyses of the motor nerves of the eye and its muscles are so generally dependent upon syphilis. Paralysis of the portio dura of the 7th pair, does not have a similar significance for several reasons. The nerve arises so far back and proceeds so immediately outwards to enter the internal auditory meatus, that it is not usually seriously compromised by a basal exudation, and therefore escapes in syphilitic meningitis. On the other hand, owing to its long passage through the bony canal, and to its extremely superficial and exposed point of exit, the facial nerve is excessively apt to be paralyzed by rheumatic or other inflammations and exudations. Hence facial palsy may be said, on the whole, to be anti-syphilitic in its expression. It must, however, be borne in mind, that specific palsy of the nerve may occur. I have seen unquestionable cases of it.

3. *Syphilitic Phthisis.* FOURNIER. (*Gazette Hebdom.*, Dec. 17, 1875.)

The author formulates his conclusions as follows:

1. Tertiary syphilis can produce in the lungs, lesions which either locally or by reacting on the general health, simulate pulmonary phthisis.
2. These pulmonary lesions of syphilis are often amenable to specific treatment; however grave and important they may appear, they are far from being beyond the resources of art.

3. Consequently, when a case of pulmonary lesion presents itself, it is important, unless the existence of tuberculosis be quite certain, to ascertain if the lesion can be traced to syphilis. It is necessary always to bear in mind that syphilis is a possible cause of pulmonary lesions.

4. When syphilis can be suspected to be the cause, the primary indication is to prescribe specific treatment, which, in similar cases, has sometimes been followed by the happiest results.

Differential diagnosis:—The syphilitic lesion is unilateral, circumscribed, and without predilection for the pulmonary apices. It generally affects a portion of the lung not more than a few centimetres square, constituting a little islet of disease, surrounded by healthy lung tissue. When the morbid changes are far advanced in this circumscribed spot, the diagnosis of syphilis is pretty safe. The coexistence of a fair degree of *embonpoint* and general health, with advanced pulmonary changes, points to syphilis as the cause; so also does a slow development of the

pulmonary lesion, the general condition remaining good. A close examination of the entire body for ordinary symptoms of tuberculosis or syphilis, is of course necessary. Pulmonary syphilis is not transmissible by heredity.

4. *Precocious Malignant Syphilides*. ORY. (*Review of the Lyon Méd.*, Feb. 27, 1876)

The author discusses three causes of precocity and malignity:—force of the virus, seat of initial lesion, and condition of the contaminated organism. The thirty cases observed occurred—20 in men and 10 in women.

The author is disposed to believe that malignant syphilis is more rare in women. In fifteen cases there was chronic alcoholism; in thirteen, scrofula, mental disturbances, poverty or the feebleness of convalescence from grave disease and debauchery. These causes were sometimes associated. In some of the cases of alcoholism, the patients, though young and of a healthy aspect, had grave symptoms. Scrofula was only distinctly potent in two cases, where the latter disease was well marked. (Ricord used to say that there was a “scrofulate of pox.”—ED.) The influence of poverty, mental depression, dissipation, lactation and pregnancy is evident in the following conclusion:—“That which enfeebles the organism is the cause or a cause of malignant syphilis.”

The author differs from Van Swieten and other writers, in believing that extra-genital chancres are not followed by grave forms of disease, but twelve of his cases had malignant syphilis, of which four had chancres of the lip, three of the arm, and one of the chin.

Ory does not believe that the gravity of syphilis depends upon the power of the syphilitic virus. The reviewer combats this idea, and cites Dubuc and others to show that the gravity of syphilis often is due to the disease itself alone. He also criticises the author in his omitting to mention the age of the patient and the phagedenic phases of chancre as determining causes of gravity. The utility of a mercurial treatment even in these forms of syphilis is dwelt upon.

(Neither the author nor his reviewer mentions a cause of malignancy in syphi is which has been forcibly and clearly demonstrated by Fournier, viz., *unrecognized and therefore untreated chancre*. Given a case of syphilis, which under early and persistent treatment results in trifling developments upon the mucous and cutaneous surfaces, can it be doubted that in the absence of all treatment, either from non-recognition of the disease or from other causes (homœopathic folly, a long sea voyage, frontier life, etc.), the malady would certainly develop precociously and very probably become malignant.—ED.)

5. *The Influence of Erysipelas on Syphilis*. DR. A. DEAHNA. (*Vierteljahresschr. of Derm. and Syph.* III, 1.)

French writers (Ricord, Sabatie, Rayer, *et al.*) have repeatedly mentioned the salutary influence of acute febrile diseases, and especially ery-

sipelas, upon syphilis. In confirmation of this, Dr. D. reports the following observations made at the surgical clinic in Freiburg, Germany:

In Nov., 1873, a laborer, aged 27 years, was admitted to the hospital with a papular syphilide, which pretty uniformly extended over the face, the trunk and the extremities. There was also an induration of the prepuce and a general enlargement of the sympathetic glands. At the same time, the patient suffered from a chronic inflammation of the left elbow-joint with fistulous openings, the left arm being ankylosed in a nearly straight position. When the patient had received four hypodermic injections of sublimate (one-sixth of a grain each) he was given chloroform and his ankylosed arm was bent to a right angle and dressed with a plaster-of-paris bandage. Erysipelas being epidemic in the hospital at that time, the patient was affected by it the day after the operation. Starting from the affected elbow it rapidly extended over the whole arm, the shoulder, the breast and the back. The erysipelas lasted two weeks, and after the first week the induration of the prepuce and the syphilitic eruption of the skin had disappeared entirely. And the patient remained free from any syphilitic symptom until the seventeenth of January, 1875, when a roseola appeared sparsely over the body, avoiding, however, those portions which had been the seat of the erysipelas. From February 4th to 10th he had another attack of erysipelas affecting the left arm. On the third day of its appearance the syphilitic roseola had disappeared, and the patient has never since had any sign of the malady. In March, the diseased elbow was excised and the wound healed as readily as in any non-syphilitic patient. As the mercurial treatment had been too short to be effective, the destruction of the syphilitic virus, the doctor thinks, must be attributed to the influence of the erysipelas.

6. *Effects Produced upon the Blood of Syphilitic Patients by Mercury.*

KEYES. (*N. Y. Medical Record*, Dec., 1875.)

This valuable and interesting paper gives the results of a series of experiments made by the author with the aid of the *hématimètre*, in counting the red blood corpuscles of syphilitic and other subjects. We have space only for his conclusions.

1. Average of red blood-corpuscles in one cubic mm. of blood of healthy adult male. A high average is five millions. Anæmia rarely goes below three millions, and in five instances the count reached above six millions.

2. Effect of small doses of mercury upon the blood early in syphilis. In all the cases counted, the number of the red blood-corpuscles increased under the influence of mercury, good hygiene and tonics.

3. Effect of long-continued and of small doses of mercury upon the blood in syphilis. In three cases the drug was administered respectively, eleven, six and eighteen months—the blood count was above the healthy average, and clinically they were all in excellent health.

4. Effects of mercury in excess upon the blood in syphilis. In this (the only case in which salivation had, for special reasons, been induced,)

the count showed a loss of one million, which was attributed to the excessive use of mercury.

5. Effect of mercury combined with the iodides upon the blood in syphilis. In this list it would be fair to expect frequent exceptions to the rule of increase, because so many who need prolonged treatment, late in the disease become more or less cachectic and depreciated in general health, but in only two of the nine cases under this head did the average count fall below the standard, and this among patients who had had syphilis for a long time.

6. Effect of mercury upon the blood in syphilis in hospital cases. Of these cases one entered salivated and his count increased when he began to eat. One showed a wretched count, was debilitated by disease and hospitalism, but improved under the influence of good hygiene and tonics; and it was believed that the mercury also helped him.

7. Effect of small doses of mercury upon the blood of individuals not syphilitic. The observations showed an increase in the count, one-fifth of a grain of the potassic iodide was given in granules after each meal, and one granule was each day added after the fourth day, until there were evidences of irritative action, when the dose was reduced one-half and continued there.

The following are the author's deductions:

1. Mercury decreases the number of the red cells when given in excess, especially in hospital patients.

2. Syphilis diminishes the number of the red cells below the healthy standard.

3. Mercury in small doses, continued for a short or long period in syphilis, given alone or with iodide of potassium, increases the number of red blood-corpuscles and maintains a high standard of the same.

4. Mercury in small doses acts as a tonic upon healthy animals, increasing their weight. In larger doses it is debilitating or fatal.

5. Mercury in small doses is tonic (for a time at least) for individuals in fair health not syphilitic. In such, the number of red corpuscles is increased.

V. PATHOLOGY AND HISTOLOGY.

1. *Amyloid Degeneration of the Muscular Structure of the Heart.* PROF. HESCHL. (*Wiener Med. Wochenschr.*, 1876. No. 2.)

Some time ago Prof. Heschl, of Vienna, recommended Leonard's violet ink as a very delicate test for the amyloid degeneration of tissues (see CHICAGO MEDICAL JOURNAL AND EXAMINER, December, 1875.) And now he can give another proof of the superior delicacy of this new test. Though often suspecting an amyloid state of the heart's muscle he had never been able by the ordinary tests to verify his suspicion; while now with the aid of the violet ink, Dr. Breus has detected the amyloid degeneration of the heart in a case of caries of the spine with amyloid degeneration of the liver, spleen and kidneys. Smaller and larger arteries, sometimes the capillaries too, and the connective tissue surrounding them, gave the characteristic reaction. As to the muscular fibres the primitive bundles themselves are unaltered, but they are enveloped by a homogeneous substance giving the characteristic reaction of amyloid matter. As the bundles of the heart muscle have no sarcolemma, the above described amyloid substance surrounding the muscular fibrillæ must be a new formation and most likely of an exudative origin, because of the want of texture.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

HOSPITAL PLANS. Five Essays relating to the Construction, Organization and Management of Hospitals, contributed by their authors for the use of the Johns Hopkins Hospital, of Baltimore. New York, 1875. William Wood & Co.

This is one of the most valuable books of the current season. It has its origin in the munificence of the late Johns Hopkins, of Baltimore, who bequeathed a sum of money, now amounting to three millions of dollars, for the establishment and maintenance of a hospital, an orphan asylum, a training school for nurses, and a medical college, in the city of Baltimore. Placing this great sum in the hands of twelve trustees, he instructed them, in order to "provide for a hospital, which shall, in construction and arrangement, compare favorably with any other" similar institution in the world, "to obtain the advice and assistance of those, at home and abroad, who have achieved the greatest success in the construction and management of hospitals." The trustees, accordingly, authorized their Building Committee "to confer with five distinguished physicians, * * * who have made hospitals their special study, and obtain from them such advice as they may need, and to compensate them for it." The five gentlemen thus signalized are Norton Folsom, M.D., Superintendent of the Massachusetts General Hospital, Prof. Stephen Smith, M.D., well known for his studies in behalf of the Roosevelt Hospital in New York, Caspar Morris, M.D., patron saint of the Episcopal Hospital in Philadelphia, Asst. Surgeon John S. Billings, of the Surgeon General's staff in Washington, and Joseph Jones, M.D., the celebrated Professor of Chemistry and Clinical Medicine, in the Medical Depart-

ment of the University of Louisiana. Work thus inaugurated could not fail to be well done, and in this volume we have the five essays thus evoked.

These essays are read in Chicago with peculiar interest, because they contain in full, information concerning those questions of hospital construction which were recently investigated by a committee of the Medical Board of the Cook County Hospital—questions to which the answers thus elicited are now being embodied in our new County Hospital which is so rapidly approaching its completion. This committee, consisting of a physician, a surgeon and an architect, visited the cities of the East; inspected their hospitals; and there conferred with the authors of this book, as well as with other gentlemen who have made a special study of hospital construction. We flatter ourselves, consequently, that in this new Chicago hospital may be found all the excellences of older hospitals, with an absence of their defects.

In the report under consideration we learn that the site of the Johns Hopkins Hospital covers about fourteen acres. The Chicago site embraces nearly thirteen acres, but here the parallelism ends, for the Baltimore hospital will stand on elevated ground with an undulating surface, while our buildings are erected upon the flat prairie where it is only nine feet above the level of the lake. The essayists in this volume have, with the exception of Dr. Smith, touched lightly upon the subject of hospital location. Dr. S., however, presenting the results of Pettenkofer's studies concerning *ground air* and *ground water*, leaves little to be desired in this particular. He insists upon the importance of the most thorough drainage, to remove ground water, and to keep what cannot be removed at a uniform level, quoting the statement of Dr. Carpenter that when water rises in the soil, "typhoid and its allied diseases become prevalent, but as the water line falls * * *, ague, neuralgia, rheumatic disorders are rife." The use of porous tile-drains

is recommended, to favor a more perfect withdrawal not only of water but of air from the soil, it being argued that the earth is generally charged with carbonic acid and other noxious gases. The ground air is also liable to become charged with the products of putrefaction when the yards are not properly policed; and it is also the great reservoir of such malarial germs as may be produced in the earth under the influence of heat and moisture—hence it can not be too carefully excluded from all buildings. Acting upon this conviction our new hospital is brought into the most intimate connection with the system of sewerage for the city, and the air which is supplied to the buildings is not allowed to enter at the level of the earth, but is drawn in at the top of towers fifteen feet high.

Having disposed of the question of location, our authors consider the character of the buildings best adapted for a hospital. All are unanimous in recommendation of a system of detached buildings, grouped around the kitchen, laundry, engine-house and mortuary, and connected by a covered way or corridor. There seems to be little difference of opinion regarding the general mode of construction of these important offices, and of the executive building. Dr. Folsom presents for a mortuary and for a surgical amphitheatre the most elaborate plans—which are in fact the plans of the Massachusetts General Hospital amphitheatre and mortuary, and which have been, with slight modification, adopted in the construction of the new Cook County Hospital. But, regarding the construction of the hospital-ward buildings, great difference of opinion appears among the essayists. The question of temporary versus permanent edifices is fully discussed, and is unanimously decided in favor of substantial structures of brick and stone. The notion of erecting a system of wooden huts for the reception of the sick of a great civic population has here received its quietus. In fact, one need only visit such an institution as the Cook County Alms House, where the poor and the

sick are lodged in temporary wooden barracks, to see what would be the practical result if such a proposition were carried into effect.

Permanent edifices being the unanimous choice of the essayists, they proceed to discuss the question whether hospital wards should be aggregated in buildings of several stories, or whether they should be segregated in structures of only one story. Prof. Smith pronounces decidedly in favor of a single ward in each building. Prof. Jones obscures his opinion with a cloud of words. Dr. Folsom does not deny that patients get well in buildings of many stories, but is in favor of solitary wards. Dr. Billings believes that by a proper arrangement of stairways—an arrangement which has been introduced in our Chicago hospital—wards can be so isolated that buildings of several stories may be as healthful as buildings of only one story. To Doctor Morris, however, belongs the credit of having discussed this whole subject in the most enlightened and conclusive manner. He sums up the whole argument as follows:

“The experience not only of private dwellings but of public institutions, in which many persons are brought under one roof, is very strongly in favor of the superposition of one story upon another. Not only are the upper rooms more light, and cheerful, and airy, but they are also more healthy. Army experience confirms this also. In buildings provided for troops, even in miasmatic districts, those men who occupy the upper floors are less subject to disease than those on ground floors, which would not be the case if that malarious influence ascended; and travelers are aware that in foreign cities the upper floors of hotels are appropriated to the best apartments, those on the two lower floors being considered less healthy than those above. It is a well established fact that prisoners confined in upper stories enjoy better health than those on ground floor apartments.” p. 184. The Medical Board of our own

hospital arrived at the same conclusion after a careful consideration of all the circumstances connected with hospital construction in our bleak northern climate. Isolated wards may be well enough in the South, where Spanish moss drapes the live-oak with funereal gloom, or under the palm-trees and broad-leaved bananas of the tropics; but upon an open prairie, under the leaden skies of the chilly North, a "pavilion" of one story is a thing to be inspected, admired, and—carefully avoided.

A full discussion of the subject of heating and ventilation proves the truth of this conclusion. The arguments for single wards are as follows: higher ceilings, ridge ventilation, and experience gathered during the civil war. But lofty ceilings imply greater expense for fuel. Ridge ventilation adds to that expense, and insures a cold atmosphere in the lower stratum of the ward. If ridge ventilation is abandoned, and a proper system of aspiration by means of a central shaft is introduced, the ward will be warm and well ventilated, but every argument against the superposition of another ward will be removed. As for the experience during the civil war—results obtained from the treatment of vigorously constituted young men, in a temperate climate, in hospitals furnished and administered with a munificence such as the world had never before witnessed, when contrasted with the results of treatment of the dregs of civic populations, in buildings inherited from the "ages of faith," under conditions of administration of the most restricted character, can never be logically used to bolster up an argument in favor of the superiority of single story buildings. The only thing proved by such experience is the superiority of good construction and management when compared with bad arrangement, poor nursing, and scanty diet.

A great deal of space is occupied by the essayists with a consideration of the best method for heating and ventilation—these two functions being inseparably connected during the cold months of the year. All

agree that no system of artificial ventilation can equal that obtained in summer through open windows, but that is out of the question in winter. Introduction of pure air, heated by contact with steam coils below the ward, through openings in the floor, and its discharge through the ceiling, is considered the most effectual method; but its cost is enormous. It can only be employed when expense is to be left out of consideration. A room can be thoroughly warmed and very well ventilated, at half the cost of the previous mode, by introduction of warm air near or through the ceiling, and by its withdrawal through openings in the floor which communicate by a system of radiating ducts under the floor, with a central shaft in which the air is warmed and propelled upward by the heat of an iron smoke-stack. In this way a complete aspiration of the entire ward may be provided for. The wards of our new County Hospital are thus heated and ventilated. A register under each bed withdraws the air, and sucks down a fresh supply from the upper part of the room. In each corner is an open fire-place. A space of three or four feet between the floor and the ceiling of the ward below gives ample room for the arrangement of the numerous air-ducts, and this space is itself, by an ingenious contrivance, connected with the central aspirating shaft, so that stagnation of air anywhere about the building seems to be an utter impossibility.

The location of the heating apparatus is still an open question. The use of hot water seems to be impracticable in this latitude, and the authors generally concur in recommending the use of steam coils in the basement of each building. Dr. Billings expresses himself in favor of "giving to each pavilion (building) its own heating and ventilating apparatus." This has been done in the buildings thus far erected for the Cook County Hospital; but it is doubtful whether the advantages claimed for the introduction of two huge boilers directly under the floor of a ward will not be more than neutralized by the noise,

by the dirt and by the coal-dust which will fill the basement, and will find its way into the coil-chambers from which it will be drawn up through the air-ducts into the wards. It is also a question whether the basement of each building will not be needed for purposes of storage, to the exclusion of heating apparatus, which may then be concentrated in the central engine-house. It is in the basement, too, that the location of dungeons for the confinement of maniacs and drunkards is recommended.

Much more might be written concerning the minor details of construction, upon which our authors dwell, but our space will not allow anything beyond an allusion to the salient points of this interesting volume. Dr. Folsom's essay is especially rich in suggestions respecting such usually "unconsidered trifles" as the best method of constructing a window or a transom. He seems to have omitted nothing, and in the minutest particular shows himself a thoroughly finished master of hospital construction and administration. With regard to the management of such an institution all are agreed that the superintendent, though not to be charged in any way with the care of the patients, should have the education of a physician. Every physician is by no means qualified to superintend a hospital. That requires a rare assemblage of gifts, both natural and acquired. But no man is competent to intelligently superintend the administration of such a great machine who is not thoroughly educated, and practically acquainted with the facts of anatomy, physiology, and therapeutics, as well as with physics and chemistry; for no other education can enable one to fully appreciate the vital necessity for the greatest possible perfection in all arrangements and appliances for the care of the sick. And since such men can not easily be induced to take a position from which they are liable to be, at any moment, displaced at the will of a continually changing body of superior officials, it is all important that some greater degree of stability than is at present customary, should be incorporated into the management of public charitable institutions.

With this brief and imperfect notice we must commend to our readers one of the most interesting and instructive volumes that has recently attracted our attention.

H. M. L.

PRINCIPLES OF HUMAN PHYSIOLOGY. By *Wm. B. Carpenter, M.D., F.R.S., F.G.S., F.L.S., etc.* Edited by *Henry Power, M.B., etc.* Eighth edition. Philadelphia: Lindsay & Blackiston. 1876.

A glance at the index of this work, its comprehensive list of subjects and authors, would lead us to anticipate what a study of the text proves true, that the author has condensed into one volume the material for at least three. Indeed, it covers even more ground than is occupied by Flint's five volumes. Hence our first criticisms: The necessary abridgment of subjects and the unwieldy shape of the book. As a compendium of physiology in the relations of the science to histology and pathology, it certainly brings the subject, as a whole, up to the level of the latest research. This is especially true of the nervous system, and still more especially of the encephalon, both as regards its anatomy by Meynert and its functions—particularly the function of the peripheral layer of cortical substance of the hemispheres—the arguments as to the existence of motor centres in the same put forth by Ferrier, Hitzig, Hermann, Sanderson, and others; also the function of the sensory ganglia—the common seat for sensational and mental consciousness.

The function of the cord is not so well defined. It has long been considered on good authority, that cerebral memory is but a higher degree of spinal, while the researches of Dr. Hammond (whose authority on the nervous system is scarcely quoted by this author) seem fully to justify his conclusions, viz: That perception and volition are seated in the spinal cord, as well as in the cerebral ganglia; that the cord is not probably capable of *originating* mental influence independently of sensorial impressions—a condition of the brain also, till it has accumulated facts through the operation of the

senses; that as memory is not an attribute of the mental influence evolved by the spinal cord, it requires, unlike the brain, a new impression, in order that mental force may be produced.

Thus more and more are we departing from the old idea that the brain is the principal nerve-centre of the system, and approaching to the new idea that gives to the cord the first position. Of course we refer to the physiological rather than the anatomical cord—the track of gray globules which extends beyond the spinal canal even to the sella turcica. The physiological experiments of Legallois should have found a place in this particular subject. Altogether, there is not enough said as to the cumulative or storing-up power of the nerve globule—wherever that organ, for we must consider it such, may be found.

The mechanism of respiration is not as well explained as it might be, nor is the idea made sufficiently prominent that the essence of the function is in the tissues themselves. The preface acknowledges that due consideration is not given to the influence of respiration upon the circulation—that point is clearly developed when the true mechanism is made plain. The function of the liver is recognized as double, viz., glycogenic and biliary, but we find nothing concerning that complicated point in the anatomy of the liver as to whether the structure is not also a double one—a question which arises from the study of embryonic development, the biliary gland being a development from the intestinal tube, while the glycogenic is an outgrowth from the omphalo-mesenteric or portal vein, thus making the two parts of the liver arise from separate germinal plates.

No reference is made to the function of the bile, so elaborately stated by Küss, viz., the desquamation and removal of the intestinal epithelium, and thus, by simply keeping the absorbents in order, *favoring* the absorption of fat, but not otherwise concerned in that work, though the absorption of fat has been considered the special

rôle of the bile. The new theory seems reasonable, from the fact that the bile is not poured into the duodenum till some seven or eight hours after the ingestion of food, hence can have little or no part in digestion and absorption, as such.

The author treats of the kidneys as glandular organs and of the urine as a secretion of the same; whereas the purely mechanical pressure of the blood, the structure of the Malpighian corpuscles and the pathology of Bright's disease, to say nothing of the recent physiological experiments in this direction and the evidences from comparative anatomy, are very strong proofs that the kidneys are not glands in the strict physiological sense, but simply filters; that urea, in fact, no solid constituent of the urine, is secreted by peculiar gland cells in the kidney, but merely given up by drainage and passes out of the body as excrementitious matter, while the albumen so essential to nutrition is reabsorbed into the blood by the epithelium of the uriniferous tubuli, hence when the epithelium is diseased its function fails, and the albumen is left in the tubes to pass off in the urine. This to us is the most reasonable of all theories concerning the function of the kidneys—the only one that can account for all the phenomena.

The function of Peyer's patches is left quite obscure, although now apparently so well established—these organs being considered important centres of the lymphatic system, for the manufacture of white corpuscles; while the author gives an ambiguous assent to the formation of lymph corpuscles from the plasma—a modification of the spontaneous generative doctrine, recently revived by Onimus. We are surprised to see credence given to the exploded theory of Pavy, that the alkalinity of the blood protects the stomach from being digested by the gastric juice. We may well inquire, what then protects the intestine? There are many more plausible theories, such as "catalysis," the "active processes of nutrition" accepted by Flint, the coating of the stomach

formed by mucus or desquamated epithelium during digestion, quoted by some authors, as Youmans in his last chemistry, but by far the most intelligent theory is the vital rôle of the epithelium of the part—of which a striking example is afforded by the epithelium of the urinary bladder.

The doubtful expression “coagulable lymph,” is used, and the statement is made that the contractility of protoplasm is due to nervous influence. Whereas we all know contractility to be an inherent quality of protoplasm, which is manifest to a marked degree without the shadow of a nervous influence, unless we assume what it seems to us is true, that nervous force is only a part of the general force that characterizes living matter, that it is always active, but not recognized as such until it is set apart or differentiated from the common store and allowed to work through its own special organs.

We are glad to see the lymphoid organs, which include, as well, the so-called blood-vascular glands, have received so much consideration. Some of this ground has come to be no longer debatable, and yet most authors pass it over in silence. For example, Dalton’s last work makes no mention of the spleen. It shows the true scientific spirit to attack the suprarenal capsules, the pituitary body, coccygeal gland and every atom that dares to find its way into the human body, put it into the witness box and make it speak for itself. We may be sure it will never bear false witness, the fault is in our interpretation. The only name we miss from this goodly company is that of the tonsils—physiology looks upon them no longer as sinecures.

The plates for the most part are very excellent, especially those of the nervous, absorbent and muscular systems, and those of the development of the embryo, though we do not accept some of the points of development, as for instance, that of the ovary. We look upon the epithelial element of the vesicles as an offshoot from the peritoneal epithelium, made by a dipping down into the

stroma, of the investing peritoneal layer, these pouches finally becoming the closed and isolated vesicles.

Physiology is so far from being exact, every author who adds one atom to the side of certainty should receive the gratitude of us all—hence we welcome the present volume and heartily recommend it, save these few faults, to all, especially to those who can afford but one book on the subject.

S. H. S.

L'HYGIÈNE DANS LA VILLE DE ROME ET DANS LA CAMPAGNE ROMAINE, par le DR. PIETRO BALESTRA, membre des Conseils Sanitaires Provinciaux, traduit de l'Italien. Paris. 1876. pp. 267.

If the traveler in Italy does not become disagreeably acquainted with the fever that prevails near the Roman Campagna, his guide-book will tell him about it. The student of malaria, too, discovers that this locality figures largely in the statistics of miasmatic disorders in Europe. A practical work on hygiene, for the benefit of those residing near the city of Rome, would therefore be valuable in many points of view, but the writer of this treatise has, we fear, failed to understand the purpose of such a handbook. The volume before us is, in many respects, too technical for the unprofessional reader, and yet is very far short of being a compendium of information respecting malarial disease. We suspect, cannot indeed avoid the suspicion, that the chief end in view of Dr. Balestra, was to increase his professional income by the publication, for the benefit of the laity, of a work which should contain sufficient scientific facts to impress the unprofessional reader with the extent of his learning.

"In order to do away with the sad results of an intermittent fever, we must avail ourselves as early as possible of the resources of art. I therefore advise the inhabitants of Rome to select a good physician," etc.

The author is inclined to adopt the view which would account for malaria, by the introduction into the system, of the spores of certain vegetable fungi. He quotes the

article published in the *Chicago Medical Journal* for January 1874, by Dr. Jno. Bartlett, of this city, in corroboration of his views. But the name of our honorable colleague is distorted upon one page to Barlett, and upon another to Berlett. Let us charitably conclude that in the latter case only, has the author been in error.

Translations.

MEDICINE AND THE FINE ARTS.

(From the German of Rohlf's *Geschichte der Deutschen Medicin.*)

By JAMES I. TUCKER, A.M., M.D., CHICAGO.

All great poets have taken a lively interest in medicine. We know little of Shakspeare in this connection, but it is safe to say that he studied medicine as well as the old poets, for it is evinced by the masterly delineations in *Lear*, *Hamlet* and *Macbeth*. Concerning Goethe it is well known that he preferred the society of physicians, and neglected his legal studies, for a long time to such an extent that he attended only the medical college. In his autobiography he says of himself: "I gave to the study of jurisprudence only so much time and attention as was necessary to graduate with honor. Medicine fascinated me, for it enabled me to see Nature where she was not openly revealed." That Goethe's medical studies were not fruitless is shown by his discovery, later, of the intermaxillary bones and the metamorphosis of plants, which up to that time had been overlooked by anatomists and botanists. Lessing matriculated in medicine at Wittenberg, and later, was a diligent student of obstetrics at Leipzig, devoting his attention upon entering, to the history of syphilis. It is then, a fact, that great poets feel drawn towards medicine, and great physicians towards poetry, and the fine arts. Raphael

Frankenstein in his book entitled "The Poet and the Physician," has done full justice to this subject. How little great physicians have limited themselves to the study of nature and disease may be learned from the answer of Sydenham. Being asked what book the physician should read, he replied, "Don Quixote." It has been said that Raphael in his celebrated painting of the Faculty, utterly ignored the physicians. Marx was the first to remove this reproach. "But what," said he, (*Beitrag* S. 178) "if it should appear that only a superficial glance at the picture, and not the picture itself, should bear the burden of the ill humor and the sickly subserviency to rank? That another explanation should reveal that the physician, instead of being neglected and insulted by it, receives only praise and honor?"

Let us look at the painting of the poets and muses, with Apollo playing upon a sweet instrument, all together in the laurel grove, and wearing the expression of the profoundest ease and contentment, those who are listening to the music, as well as those who are entertaining themselves with conversation, exhibiting no trace of excitement or passion, then we can only believe that they are thinking of purity, goodness, truth, and value only the quieter virtues.

What could more appropriately represent the physician who with his whole soul devotes his knowledge and power to human woe, rendering to every one who needs it, self-abnegation, relief and all the blessings of the healing art.

Consequently in Art, as Raphael presented his higher conceptions for the benefit of mankind, so the medical profession becomes an imperishable glorification. To be permitted to behold in the picture of Parnassus the sentiment of the art of medicine must, therefore, inspire in every disciple the feeling of joy and pride.

MEDICINE AND POETRY.

(Translated from Rohlf's *Geschichte der Deutschen Medicin*. Stuttgart, 1875.)

By JAMES I. TUCKER, M.A., M.D., CHICAGO.

Medicine and poetry are the oldest of the arts. Poetry is the language of the childhood of a people, because the language of feeling, and its development precedes that of the understanding. The language of understanding is prose. We may study the history of every nation, search after the most ancient traditions of Greece and the Indus, of the Scandinavians and the Indians, everywhere we find that the earliest products of the mind are expressed in metrical form. Hence a people can no longer produce a great poet after it has passed the period of popular sentiment and primitiveness; thereafter the understanding rules supreme and the *blastemal* stage is begun. A truly great poet must possess a childlike feeling, for in such only can fancy take root. In relation to age is it, therefore, possible to divide the arts into those which unfold themselves during the childhood and those which develop in the maturity of a nation's existence. To the first belong poetry and medicine, to the latter sculpture and painting. Between the two, stands music. To communicate his feelings and thoughts to others; to sing the deeds of heroes, gods and demigods; to heal the wounded—these, if indeed the germs exist and materials for the realization of the idea, these naturally precede those which are to come. With poetry it was different; here, in the very beginning, a medium of communication was given, namely, language. Thus also with medicine. Nature indicated the manner in which wounds must be healed, and how in fevers attending internal disease, recovery must take place through her inherent power. And as Apollo was regarded by the Greeks as the god alike of the poet and the physician, so those who distinguished themselves by the healing of sicknesses, were held by their fellow-men to be beings endowed by superior gifts, and like Chiron the centaur and Esculapius,

to be the sons of Apollo. It is not by accident that Greek medicine attained to its high degree of perfection. The principal reason is, that its physicians comprehended *the principles of their art*. In all Grecian medicine—and Hippocrates, even, spoke of a medicine still more ancient—we find no where and at no time an effort to convert the art into a science, as it is *the persistent tendency of modern medicine to do*. To the Greeks, medicine was the *healing art*. We observe, therefore, that all physicians deservedly prominent who have followed Hippocrates, from antiquity to the present day, have held the arts in high esteem, having been interested in music, sculpture or painting, perhaps participated in them, and showed, for poetry, the art of arts, and consequently for all the humane bellelettristical studies, the most devoted consideration.

Medical News and Items.

DO "THEY DO THESE THINGS BETTER IN FRANCE"? A writer in the *Soir* remarks that the wretched custom prevails in France of expecting physicians and attorneys to wait for remuneration of professional services for an indefinite period of time. "It often happens that a physician is not paid until a year has elapsed after his visits. What do they expect him to live upon while he is waiting? I recall a remark made by one of my friends on receiving, after three years, the account of his medical attendant: 'I wouldn't have thought it of him!' If the custom of other nations were introduced in France, we should no longer have presented to us the sad spectacle of a man of science, often advanced in years, aroused from sleep in the night and made to ascend and descend several flights of stairs, the payment for whose services is neglected with less scruple than would be entertained for a mere lackey."

THERE IS WAR IN CANADA, between the *Canada Medical Record*, which is supposed to represent the interests of the College of Physicians and Surgeons of Lower Canada, and *L'Union Médicale de Canada*. The subject of contention is a Medical Bill of Reform, presented by Hon. M. Chapleau in the interest of the general profession, who have ventured to operate in the matter without the advice and assistance of the honorable professors of the Medical College, and, in particular, the Editor of the *Record*. The Editor of the *Union Médicale* satirizes his editorial confrère as Jupiter Tonans. "He desires to be esteemed a Jupiter, it is true, but Minerva never sprang, full armed, from his head. The *Medical Record* thinks it monstrous that the property of the College should be transferred to another organization. We should like to know of what this property consists. What is left when you take away its archives, its charter, and its seal? Would you answer by referring to the petty sum which comes largely from the sale of licenses, useless to those who gain them? Distribute this among its members and bury the decrepit organization with an Homeric repast. All's well that ends well. The College is powerless for good or evil. The evil it does is even purely negative, for it cannot prevent the accomplishment of good. Better commit suicide under these circumstances, for then 'life becomes an opprobrium and death a duty.'"

A DANGEROUS PRESCRIPTION.—The following prescription was presented at a pharmacy: R, Acid. Chromic., grs. viij; Glycerinæ, ʒj. M. et S. For external use. The clerk dissolved the acid in a vial by the aid of a little water, then added the glycerine and agitated the contents. An explosion occurred which expelled the contents of the vial, but fortunately did not burst the latter, which was left in the hand of the stupefied drug-clerk.—*Pharm. Central*.

THE following books have been donated to the library of the Chicago Medical Press Association.

From Dr. A. Reeves Jackson :

Lewis' Dispensatory.
Turner's Chemistry.
Barton's Lectures on Materia Medica, 2 vols.
Beddoes' Observations.
Carmichael on Venereal Diseases.
Gregory's Practice, 2 vols.
Dewees' Practice, 2 vols.
Package of Journals.

From Dr. R. C. Hamill :

Medical and Surgical History of the Rebellion, 2 vols.
Ninth Census of the United States, Circular No. 4.
Transactions of American Medical Association, 12 vols.
Medico-Chirurgical Review, 1827.
Mackenzie, Diseases of the Eye.
Patent Office Report, 1851 and 1855.

From Dr. J. M. Woodworth, U. S. M. H. S. :

Annual Reports Marine Hospital Service, 1873 and 1874.
Nomenclature of Disease.
Migrants and Sailors.
Hospitals and Hospital Construction.
Contributions to the Study of Yellow Fever.

From State Board of Health of Michigan (Dr. Baker, Sec.):

Michigan State Reports, Nos. 1, 2, 3, 4 and 5.
Health Report for 1872, 1873, and 1874.

EDW. WARREN SAWYER,
Librarian.

PHOTOGRAPHY AS A MEANS OF DIAGNOSIS.—The photographic process is so acutely sensitive that it will often present vividly certain blemishes which the eye is incapable of detecting. Some years ago a lady had a photograph taken of herself in which the face appeared covered with blotches which could not be seen in the original. The next day they became evident to the naked eye and she finally died of small pox. The photograph had proceeded farther than vision, and recognized in advance, exceedingly delicate light-yellow stains.—VOGEL. *Photography & Chemistry of Light*.

THE PHYSICIAN OF THE SULTAN.—The Sultan of Turkey, grateful for the relief which he has had from a recent illness, has just presented his Medical Director General with one thousand Turkish pounds.—*Lyon Médical*.

A PHARMACIST WITH A CATHETER IN HIS HAND.—A Pharmacist of Bordeaux sent his son, a student in pharmacy, to catheterize an individual affected with retention of urine. Soon after the patient succumbed. The tribunal has just condemned this student to ten days imprisonment for the injuries inflicted in his ignorance; and a fine of forty-five francs for violation of the law respecting the practice of medicine.—*Lyon Médical*.

THE CITY OF PARIS AS A DISSECTION CENTRE.—“Even now she is the city which offers the greatest resources for dissection, for nowhere can subjects be found in greater number; as independently of those which the numerous hospitals furnish, many of the departments around Paris send the bodies of all their dead prisoners to Clamart or École Pratique. The latter is situated in the heart of the Latin Quarter, and, although its appointments are not so complete as the former, still, its proximity to the École de Médecine, and the rooms of a great number of students, causes it to be much frequented. More than a thousand cadavers are yearly required for the uses of this institution, while Clamart demands from two thousand to twenty-five hundred, as, while the former is opened only during the scholastic year, the latter is continually accessible. The charges for dissecting material are now moderate, as both establishments furnish it to the student for the sum of twenty francs (\$4.) per term.”—*Paris Correspondence Det. Med. Rev.*; April, 1876.

THE EDITOR of the *Louisville Medical News*, in referring to the fact that the University of Louisville had decided to abolish the requirement of theses from candidates for graduation, says: “We believe this is the first institution which has taken this step.” It cannot be that our friend takes the papers. Rush College, of Chicago, has not required theses for several years.

"DOUBLE-HEADED DIPLOMAS.—A correspondent from Carthage Ill., writes: 'In your issue of Feb. 26th, you mention "a new, time-saving method of securing a diploma," and credit those Siamese twins institutions at Louisville, Ky., with inaugurating it; but the credit (?) for this innovation belongs farther west. The College of Physicians and Surgeons of Keokuk, Iowa, has had a summer and winter course of lectures in operation for three or four years past, and grants diplomas after an attendance on the two courses, so that a student may commence attending lectures in October and graduate in the following May.'"—*N. Y. Med. Record*, March 11, 1876.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, June 5 and 19—Chicago Med. Society, regular meetings at the Washingtonian Home, 8 P. M.

Mondays, June 12 and 26—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

CLINICS. *Every Monday.*

At Eye and Ear Infirmary, (Peoria and Adams Sts.) 2 P. M.—Prof. Holmes.

At Central Dispensary (239 W. Van Buren St.), 2 P. M., *Gynecological*—Dr. Adolphus; 3 P. M., *Medical*—Dr. Bridge.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

TUESDAYS. SOCIETIES.

Tuesday, June 13—Academy of Sciences, regular meeting, 8 P. M. (263 Wabash Ave).

CLINICS. *Every Tuesday.*

At County Hospital, 2 P. M., *Medical*—Prof. Lyman; 3 P. M., *Surgical*—Prof. Freer.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Hollister.

WEDNESDAYS. CLINICS. *Every Wednesday.*

At County Hospital, 2 P. M., *Ophthalmological*—Dr. Montgomery; 3 P. M., *Gynecological*—Prof. Quine.

At Mercy Hospital, 2 P. M., *Surgical*—Prof. Andrews.

At Central Dispensary, 2 P. M., *Medical*—Dr. Bridge.

At St. Luke's Hospital, commencing at 1.30 P. M., *Surgical*—Dr. Owens.

THURSDAYS. CLINICS. *Every Thursday.*

At Central Dispensary, 2 P. M., *Diseases of Chest*—Dr. Ingals.

At Mercy Hospital, 2 P. M., *Medical*—Prof. Johnson.

FRIDAYS. SOCIETIES.

Friday, June 9—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P. M.

CLINICS. *Every Friday.*

At County Hospital, 2 P. M., *Medical*—Prof. Lyman; 3 P. M., *Surgical*—Prof. Freer.

At Mercy Hospital, 2 P. M., *On Diseases of Eye and Ear*—Prof. Jones.

At Central Dispensary, 2 P. M., *Gynecological*—Dr. Adolphus.

SATURDAYS. CLINICS. *Every Saturday.*

At Rush College, 2 P. M., *Surgical*—Prof. Gunn; 3 P. M., *Diseases of the Brain and Nervous System*—Dr. Hay.

At Chicago College, 2 P. M., *Surgical*—Prof. Andrews; 3 P. M., *Medical*—Prof. Davis.

At all the above Clinics visiting regular practitioners are, we believe, admitted.

THE
Chicago Medical Journal
AND
EXAMINER.

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Original Communications.

**THE MORTALITY OF SURGICAL OPERATIONS IN
THE UPPER LAKE STATES, COMPARED WITH
THAT OF OTHER REGIONS.**

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ASSISTED BY THOS. B. LACEY, M.D.,

ASSISTANT SURGEON IN THE NATIONAL SOLDIERS' HOME.

Operative Surgery in the Lake States of America has results widely different from those of the Atlantic region, and of Europe. Many operations are much less fatal here than there, so that to the most important of all questions about a proposed operation, viz., What is its danger? the Western practitioner can find no book to furnish him a correct answer. Full proof of this will be given as we proceed.

The object of the present essay is to assist the Western surgeon in ascertaining with regard to the principal operations :

1. What is their risk in the Lake States?
2. What has it been in other regions?
3. What are the opinions and precepts of the principal surgeons of the world regarding each?
4. What conclusions are we to draw for our own guidance?

Before entering upon details, we may illustrate the wide difference between the results of our surgery and that of other regions by studying the following condensed table:

TABLE I.

Showing the Mortality of the Four Major Amputations in the Lake States, compared with the same operations elsewhere. (Joint amputations excluded.)

	ARM.			FOREARM.			THIGH.			LEG.			All Combined.		
	Cases	Died	Pr ct. Mort.	Cases	Died	Pr ct. Mort.	Cases	Died	Pr ct. Mort.	Cases	Died	Pr ct. Mort.	Cases	Died	Pr ct. Mort.
Lake States, Hosp. and Priv. Prac. combined, with cases not stated, whether hospital or not.....	27	3	11	20	2	10	76	18	24	70	16	23	193	39	20
Lake States, Hospital Practice alone.....	10	1	10	9	1	11	20	6	30	28	5	18	67	13	19
Lake States, Private Practice alone.....	16	1	6	11	1	9	54	11	20	41	10	24	122	23	19
Pennsylvania Hospital.....	71	9	13	100	9	9	76	25	33	138	54	38	385	97	25
Pennsylvania Hospital.....	91	1	1	5	25	5	51	24	47	44	13	30	136	43	32
New York.....	27	10	37	17	2	12	41	22	54	34	11	32	119	45	38
Boston City**.....	76	14	18	68	13	19	236	68	29	267	66	25	647	161	25
Mass. General+.....	297	110	37	244	40	16	935	435	46	613	270	44	2,089	855	41
British Country Hospitals§.....	374	67	18	375	32	8	925	256	28	838	177	21	2,512	532	21
" " Priv. Prac., Simpson's erroneous statis.¶.....	433	19	4	378	2	5	669	123	18	618	82	13	2,098	226	10
Parisian Hospitals¶.....	35	19	54	33	11	33	119	80	67	113	71	63	300	181	60
K. k. allg. Krankenhaus, Vienna**.....	72	23	32	73	21	29	157	81	51	241	71	29	543	196	36

* Reports of Boston City Hospital.

+ Boston Medical and Surgical Journal, May 1, 1872.

+ Works of Sir J. Y. Simpson, p. 338.

§ Mr. Callender, in St. Bartholomew's Hospital Report, 1869.

¶ Works of Sir J. Y. Simpson, p. 304.

¶ Statist. des Hopitaux de Paris, 1861—63.

** Aertzlicher Bericht, k. k. allgemeinen Krankenhauses, Wien, 1861—71.

The first thing which strikes the Western surgeon in this table, is the prodigious excess of mortality reported almost everywhere. With us the average mortality of all the four major amputations combined, is only 20 per cent., while in the hospitals of the Atlantic States it is 30 per cent. ; in the great Imperial General Hospital (k. k. allg. Krankenhaus) of Vienna, 36 per cent., in the British hospitals, 41 per cent., and in the famous hospitals of Paris, it attains the astounding figure of 60 per cent.

Yet these rates of mortality are not inevitable results in each region, for if we examine more closely, we find that the British country hospitals have a mortality but little greater than those of Chicago.

I pass over, for the present, the strange figures of Sir J. Y. Simpson about British private practice, which show an apparent mortality for the four major amputations, of only 10 per cent. The error of these figures has been exposed by Callender and others, and the curious way in which it occurred will be hereafter explained.

Again, if we take the important operation of herniotomy, we find a perfectly similar result, as we may see from the following figures :

TABLE II.

Showing the Mortality of Herniotomy, in the Lake States, compared with that of other Regions.

	CASES.	DEATHS.	PER CT. MORT.
Lake States.....	34	8	24
Vienna General Hospital.....	259	114	44
London Hospitals.....	326	136	42
British larger Provincial Hospitals.....	177	72	41
“ smaller “ “.....	118	53	45
Paris Hospitals.....	361	244	68
Combined Hospital and Private Practice in Boston, Cheever.....	27	14	52

It thus appears that the very hospitals and great masters to which we have resorted most for instruction

in surgery have the least success in curing their patients. It follows also, that as operative risks with us thus differ greatly from the rates generally given at the East, we shall be compelled to revise all the estimates, and deduce new rules adapted to the facts of our own region. It is in the hope to contribute something to this great end, that the following facts and figures have been laboriously collected.

It will be remarked by referring to Table I, that there is but little difference in the Lake States between the results of private and of hospital practice, and, I may also add, between country and city practice. Here are the figures, fractions being omitted :

Mort. of the 4 maj. amp's in Lake States Hospitals.....	19 per ct.
“ “ “ private practice in the Lake States.....	19 “
“ “ “ country “ “	20 “

In contrast to this approximate uniformity, Sir J. Y. Simpson represents the mortality of hospital major amputations in Great Britain to be four times as great as in private country practice, viz. :

British civil hospital mortality.....	41 per cent.
“ private country practice mortality.....	11 “

Two things here surprise the Western American surgeon :

1. That the difference between the hospital and private practice is so enormous—

2. That country amputations in Great Britain should be twice as successful as among the vigorous, well-fed population around our great lakes.

This last point requires consideration, and certainly looks like an error, for our country people are robust, well fed, and well housed, probably more so than the British peasantry. It cannot be the difference in skill, for though the average American grade of professional education is lamentably low, yet the country surgeons, from whom I collected these cases were picked men, all known to me to be men of education, and generally of

superior capacity. Taking them together, I pronounce them, without hesitation, to be fully equal to country surgeons in Great Britain.

After careful reflection, I think that Sir J. Y. Simpson's country statistics are grossly delusive, and that he in all honesty has fallen into a fatal error in the manner of collecting his cases. I wish to dwell upon this a little, because the same identical blunder is repeated every year by committees of medical societies, desirous of collecting surgical statistics for their reports.

Sir J. Y. Simpson printed a quantity of blank reports of amputations to be filled out with the operations and their results, and mailed these to an immense number of country surgeons, most of whom must have been personally unknown to him. Now, in the replies thus obtained, there will be three sources of error, all tending to understate the deaths and exaggerate the proportion of recoveries.

1. Those surgeons who are honest, but have chanced to have a "run of bad luck," that is, an accidental series of incurable cases, will not be likely to answer the circular. They are chagrined at the results of their efforts, and indisposed to court publicity for them. To a large extent these men will neglect to reply, and their fatal cases will be lost to the collector.

2. For analogous reasons the honest surgeon, who has had accidentally a "run" of favorable cases, feels exhilarated, and quite desirous to have them brought to notice. Such men will all respond, and thus give a preponderance of successful cases.

3. The dishonest men, (and there are perhaps some liars in Great Britain, as well as elsewhere) look upon the circular as a favorable opportunity to bring themselves into the notice, at least of Sir James, and perhaps of the rest of the world, if he should chance to publish names. They will therefore fill up the paper with false cases, or true cases with false results, or deceive more gracefully by omitting their fatal cases.

It is inevitable that statistics gathered by promiscuous circulars must be grossly delusive, and they always falsify on the successful side.

Impressed with the necessity of avoiding this error, I only applied to men of known and high-toned honesty, and almost always made my application in such a way as to secure a positive response. In this way the number of cases collected was much smaller than that obtained by Simpson, but they are truthful, and, I believe, represent correctly the results of operative surgery in this region.

If this correction could be made in Sir James' tables, I think the results of British private practice would not differ greatly from the American.

There is another mode of collecting statistics equally absurd which it may be worth while to mention here. This consists in searching the files of medical journals and picking up and tabulating the operations there recorded. The notorious fact that men for the most part go into print with only successful cases, is sufficient to show the utter worthlessness of such figures.

I have not entered upon the old dispute whether statistics are of any use. Fifteen years ago the principal English surgeons were accustomed either to scout them openly, or, when they employed them, entered a protest that they attached little weight to them. At the present time, the whole surgical world is agreed, that properly collected, they are important aids in arriving at truth.

The fact is, statistics are simply recorded experience, and cannot be ignored, any more than experience in any other form. They have the same liability to error as other methods of investigation, viz., that they may be unskillfully or dishonestly managed, and fail to reach the truth; but the same must be said of all other modes of recording experience. No sane man will pin his faith to statistics alone, but all surgeons at the present day recognize them as important aids, in our methods of research.

The cases in this essay are derived—

1. From the surgical records of Mercy Hospital, which have been carefully preserved under my own supervision since June, 1859.
2. From records of my private practice.
3. From such partial records of operations in the Marine, the County, St. Luke's and the two Women's Hospitals, as survived the great fire.
4. Notes of the operations of surgeons in Chicago and in the surrounding country, who are personally known to me, and whose statements I believe can be relied on for candor and truth.

As I desire that these statistics shall be worthy of the highest confidence, I have carefully rejected from the Lake States lists all matter furnished by persons not known to be trustworthy, as well as all tables of cases, published in journals or in reports of societies, whose mode of compilation was not fully known to me. The tables of Western practice here given, embody with absolute impartiality the failures as well as the successes of the operators, so that they may be trusted as fair samples of the operative work of this region.

In collating, for comparison with ours, the printed statistics of other regions, I have, so far as possible, rejected all figures collected by the faulty methods above referred to, but it is impossible to determine the faithfulness and honesty of distant authors with the same precision that we can that of our own acquaintances.

All military cases are omitted from the tables of Lake States surgery, but are often quoted for comparison in stating results elsewhere. There are several excellent surgeons in Chicago, such as Professors Freer, Gunn, Isham, Sherman, Powell and Bogue, who were unable to furnish me more than a very few cases, notwithstanding their extensive experience, partly because they lost all their papers in the great fire, which swept the city, and partly because the hospitals, in which they served, lost

their books in the same tremendous conflagration. Otherwise the tables might have been more extensive, though the ratios of mortality would not have been materially changed.

The hospital cases are almost entirely derived from the records of Mercy Hospital, and it is worthy of notice that, contrary to the experience elsewhere, their results have equaled those of private practice. I attribute this good fortune mainly to the special care which I have given to ventilation and other antiseptic measures.

AMPUTATIONS.

First among these we will consider the disarticulations of the shoulder joint, of which very few have occurred in this city. In my own practice, I have uniformly preferred excision of the joint wherever the choice was possible, because it is not only less dangerous but leaves a very useful limb.

TABLE III.

Amputations at the Shoulder Joint.

OPERATOR.	AGE.	REASON FOR OPERATION.	COMPLICATIONS.	OPERATION.	GENERAL CONDITION AT TIME OF OPERATION.	TIME FROM BEGINNING OF CASE TO OPERATION.	RESULT.	TIME FROM OPERATION TO DEATH OR RECOVERY.	HOSPITAL OR PRIV. PRACTICE.
Dr. E. Andrews.....		Comp. fract. humerus from R. R. cars.....	Tissues of chest torn	Flap.	-----	Primary.	Recovered.	42 days.	Hospital.
" A. Fisher.....	30 yrs.	Gunshot fracture at joint.....	-----	-----	Medium.	7 days.	"	-----	"
" Hooper.....	32 "	R. R. fracture humerus.....	None.....	-----	Good.	3 "	Died.†	36 hrs.	"
" J. H. Hollister.....	24 "	Carics of humerus after ampt. at mid. 3d.....	None.....	-----	Bad.	-----	Recovered.	-----	Priv. Prac.
Cook Co. Hospital*		Disease of parts.....	-----	-----	-----	-----	Died.	-----	Hospital.
Dr. A. J. Baxter.....	36 "	Necrosis after fract. humerus.....	None.....	-----	Bad.	6 weeks.	"	-----	Priv. Prac.
" A. J. Baxter.....	25 "	Compound fract. humerus.....	None.....	-----	Good.	Primary.	Recovered.	-----	"
" A. J. Baxter.....	35 "	Compound fract. shoulder.....	None.....	-----	Medium.	"	"	-----	"
" A. J. Baxter.....	-----	Necrosis of humerus after ampt. of arm.....	None.....	-----	"	6 months	"	-----	"
" A. J. Baxter.....	-----	Compound fract. of humerus.....	-----	-----	"	Primary.	"	-----	"
" E. W. Lee.....	50 "	Compound fract. of humerus.....	-----	-----	Bad.	-----	"	4 weeks	"
" E. W. Lee.....	45 "	Compound fracture of humerus.....	-----	Flap.	"	Primary.	"	5 "	"
" S. Marks.....	34 "	Traumat. aneurism of subclavian artery.....	-----	-----	Medium.	8 weeks.	"	4 "	Hospital.

* Surgeon's name not recorded.

† Cause of death, pyæmia.

Total, 13 cases.

RECAPITULATION—Recovered, 10, of which 5 were primary, 2 secondary, 1 pathological, and 2 not stated.

Died, 3, of which 2 were secondary, and 1 pathological.

Hospital practice, 5 cases, of which 2 died.

General mortality, 23 per cent.

Private practice, 8 cases, of which 1 died.

DISARTICULATIONS OF THE SHOULDER ABROAD.

I find the following records of this operation in various countries :

TRAUMATIC PRIMARY CASES.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Boston Med. Jour., 1872.....	7	4
Boston City Hosp. Rept., Dr. Cheever.....	9	7
Mass. Gen. Hosp., 1871.....	15	8
Penn. Hosp., Dr. Norris.....	11	2
U. S. Marine Hosp. Repts., Dr. Woodworth.....	1	1
St. Thomas Hosp. Rept., London.....	2	1
St. Bartholomew's Hosp., London, Mr. Callender.....	2	0
St. George's Hosp., London.....	3	3
K. k. allg. Krankenhaus, Wien.....	8	4
Dr. Herrgalt, Strasburg.....	1	1
Leeds Gen. Infirmary, Mr. Nunnely.....	9	4
Glasgow Infirmary, Glasgow Med. Jour., 1854.....	19	8
Siege of Antwerp, Schmidt's Jahrbücher, vol. 156, p. 249.....	5	0
Paris, 1830—32—48, " " " ".....	2	1
Crimean War, " " " ".....	172	105
Italian " " " ".....	12	5
British Mil. Hosp., Brussels, 1815, Guthrie's Com.....	6	1
Schleswig Holstein War, Schmidt's Jahrbücher, vol. 156.....	6	3
War of 1866, " " " ".....	2	0
Battles of Vittoria, Pyrenees and St. Sebastian, Guthrie, quoted in Dict. des Sci. Med., Art. Amputations.....	19	1
Totals.....	311	159

Mortality, 51 per cent.

TRAUMATIC SECONDARY CASES.

	CASES.	DEATHS.
New York Hosp., Boston Med. Jour., 1872.....	4	2
Boston City Hosp. Rept., Dr. Cheever.....	2	1
Billroth's Letters.....	1	0
Dr. Herrgalt, Strasburg.....	1	1
Battles of Vittoria, Pyrenees, and St. Sebastian, Guthrie, quoted in Dict. des Sci. Med., Art. Amputations.....	19	15
Glasgow Infirmary, Glasgow Med. Jour., 1854.....	7	4
Siege of Antwerp, Schmidt's Jahrbücher, vol. 156.....	3	2
Paris, 1830—32—48, " " " ".....	2	1
Crimean War, " " " ".....	56	35
Italian War, " " " ".....	34	16
Schleswig Holstein War, " " " ".....	4	3
War of 1866, " " " ".....	9	3
Dutch and German War, " " " ".....	4	1
British Mil. Hosp. in Brussels, 1815, Guthrie's Com.....	12	6
Totals.....	158	90

Mortality, 57 per cent.

CASES WITH TIME OR CAUSE NOT STATED.

AUTHORITIES.	CASES.	DEATHS.
Rostock Hosp. Rept., 1868.....	2	0
St. Bartholomew's Hosp., 1863—71.....	1	0
Circular No. 6, Surgeon Gen. U. S. A.....	237	93
“ “ 3, “ “ “ “.....	4	1
Trans. Ill. State Med. Soc., 1863.....	6	2
Statist. des Hôpitaux de Paris, 1861—63.....	7	6
Deutsches Zeitschrift für Chir., Bd. 2, S. 380.....	4	2
Arch. Klin. Chir., Bd. 13.....	2	0
Siege of Antwerp, Schmidt's Jahrbücher, vol. 156.....	8	2
Paris, 1830—32—48, “ “ “ “.....	14	5
Crimean War, “ “ “ “.....	261	152
Italian War, “ “ “ “.....	166	92
Schleswig Holstein War, “ “ “ “.....	20	9
War of 1866, “ “ “ “.....	14	5
Dutch and German War, “ “ “ “.....	29	16
Lehrbuch Resectionen von O. Heyfelder, p. 220.....	222	101
Totals.....	997	486

Mortality, 49 per cent.

PATHOLOGICAL CASES.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Boston Medical Journal, 1872.....	2	1
Boston City Hospital, reported by Dr. Cheever.....	1	0
Massachusetts Gen. Hosp., Boston Medical Jour., 1872.....	11	3
Pennsylvania Hospital, " " " ".....	1	0
Guy's Hospital Reports.....	1	1
St. Thomas' Hospital Reports.....	1	0
St. Bartholomew's Hospital Reports, 1863—71.....	5	0
Statist. des Hôp. de Paris, 1861—63.....	6	3
Archiv. Klin. Chir., Bd. 8 and 10.....	4	1
Leeds General Infirmary, Mr. Nunnely.....	2	1
Totals.....	34	10

Mortality, 29 per cent.

SUMMARY OF SHOULDER AMPUTATIONS ABROAD.

	CASES.	DEATHS.	PER CENT. MORTALITY.
Traumatic, primary.....	311	159	51
" secondary.....	158	90	57
Time or cause not stated.....	997	486	49
Pathological.....	34	10	29
Totals	1,500	745	50

Mortality in the Lake States, 23 per cent.

From these figures it appears that the mortality of this operation abroad averages 50 per cent., which is more than twice that observed in the Lake States.

The primary amputations are a little less fatal than the secondary, but pathological cases are everywhere the safest, being only 29 per cent. abroad, and in the Lake States still less.

All the shoulder amputations are more fatal than resection, hence amputation should only be performed when resection is inadmissible. We shall discuss the relative dangers more fully when we come to treat of resections. At present it suffices to say that the operation is not justifiable for such cases as mere caries, compound fracture of the joint, etc., etc., for which it is occasionally performed.

OPINIONS OF AUTHORS.

Demme's statistics show that for gunshot fractures of the shoulder, excision gives the best, and conservative treatment the worst, results.

Dr. A. Kadis (Petersburg Med. Paper, 1869) says resection gives the best results, and disarticulation should be used only in the worst, and conservative treatment in the lightest cases; excision to be employed when the bone is comminuted and likely to become carious.

Joseph Lister says (Holmes' Surg., vol. V, p. 637): "Amputation at the shoulder-joint * * * yields very satisfactory results."

T. Holmes says (Holmes' Surg., vol. V, p. 664) amputation is only to be performed for injuries of the shoulder too extensive for excision, but is to be preferred for rapidly growing tumor of the head of the bone, especially if cancerous, but never for ankylosis.

Gant's Surgery, p. 289, says that in bullet wounds of the shoulder, amputation is not equal to excision; p. 454, speaking of compound fractures of the head of the humerus, that "amputation must be resorted to in any additional injuries to the vessels and nerves;" p. 673,

says amputation is less favorable than excision by about 6 per cent.

Guthrie advocated amputation at the shoulder for gunshot fractures of the upper part of the shaft of the humerus.

Erichsen (*Surgery*, vol. I, p. 203) advises to resect such cases, unless important vessels and nerves are destroyed also.

Ashurst (p. 117) says the results of this amputation are "tolerably favorable."

CONCLUSIONS.

1. Amputation at the shoulder in the Lake States has a mortality only half that stated in the books.
2. It may be practiced when the parts below are so destroyed by violence or invaded by cancer as to admit of no more distal operation.
3. It should not be practiced for caries, for gunshot fractures not involving the great vessels and nerves, nor for any other condition which admits of resection.

TABLE IV.
Amputations of the Arm.

OPERATOR.	AGE, Yrs.	REASON FOR OPERATION.	COMPLICATIONS.	OPERATION.	(GENERAL CONDITION AT TIME OF OPERATION.)	TIME FROM BEGINNING OF OPERATION.	RESULT.	TIME FROM OPERATION TO DEATH OR RECOVERY.	HOSPITAL OR PRIV. PRACTICE.
Dr. E. Andrews.	---	Arm crushed by cars.	---	Middle 3d. Both arms at 2 & 6 in. below shoulder	---	Primary.	Recovered	28 days.	Hospital.
" E. Andrews.	---	Arm crushed by machinery	---	Middle 3d.	---	"	"	---	Priv. Prac.
" E. Andrews.	7	Gunshot fract. of arm.	---	Flap, upper 3d.	---	Not stand	Died.	48 hrs.	Hospital.
" E. Andrews.	7	Arm crushed by cars.	Leg crushed.	Re-ampt. mid. 3d.	---	Primary.	Recovered	50 days.	"
" E. Andrews.	25	Necrosis of stump of humerus.	None	Upper 3d.	Good.	15 mos.	"	---	Priv. Prac.
" E. Andrews.	36	Ununited fract. from gunshot wound.	None	---	---	Primary.	"	4 mos.	Hospital.
" E. Andrews.*	24	Arm lacerated by machinery.	None	---	Med.	Primary.	"	---	"
" E. Andrews.	25	Cancer of stump.	None	---	---	Primary.	"	---	"
" E. Andrews.	25	Arm torn off by machinery.	None	Circ., upper 3d.	Bad.	Primary.	"	---	Priv. Prac.
" E. Andrews.	70	Cancer.	None	Upper 3d.	Good.	Primary.	"	---	"
" La Count.	45	Forearm torn off by machinery.	None	Circ. middle 3d.	---	Second'y	"	---	"
" La Count.	45	Mortification of forearm after fract.	Abscess in arm.	Flap, upper 3d.	"	Primary.	"	---	"
Cook Co. Hospital	25	Forearm torn off at elbow by machinery	None	---	---	Primary.	"	---	Hospital.
Dr. H. Wardner.	12	Injury	---	Upper 3d.	Bad.	Second'y	"	5 weeks	Priv. Prac.
" H. Wardner.	12	Compound fract. forearm.	Tight band. and mort.	---	---	Primary.	Died. ‡	3 days.	"
" H. Wardner.	13	Arm crushed by R. R.	Chest injured severely	Lower 3d.	"	Primary.	Recovered	4 weeks	"
" E. D. Kittoe.	14	Compound fract. elbow.	Erysipelas & gangrene	Upper 3d.	"	11 mos.	"	---	"
" E. D. Kittoe.	24	Necrosis bones of arm and forearm	None	Middle 3d.	Good.	Second'y	"	---	"
" E. D. Kittoe.	23	Member mortified by tight binding.	"	Upper 3d.	---	Primary.	"	---	"
" E. W. Lee.	20	Gunshot wound of elbow and arm.	Great shock	Flap, upper 3d.	Med.	"	"	3 weeks	"
" E. W. Lee.	20	Compound fract. humerus	---	---	---	"	"	4 "	"
" S. Marks.	26	Compound fract. humerus	Tetanus	Upper 3d.	Bad.	10 days.	Died.	---	Hospital.
" S. Marks.	21	Traumatic gangrene.	---	---	---	20 hours.	Recovered	6 weeks	Priv. Prac.
" S. Marks.	30	Compound fract. humerus	---	Lower 3d.	Good.	Primary.	"	18 days.	"
" S. Marks.	5	Compound fract. humerus.	---	Upper 3d.	---	"	"	---	"

* No. in Andrews' Surgical Record, 8,399.

† No. in Andrews' Surgical Record, 8,421.

‡ Had tetanus 30 days.

§ Cause of death, gangrene.

RECAPITULATION.

	CASES.	DEATHS.	PER CENT. MORTALITY.
Total Number.....	27	3	11
Traumatic, primary.....	15	3	20
" secondary.....	8	0	0
Time of operation not stated.....	1	0	0
Pathological.....	3	0	0
Hospital Cases.....	10	1	10
Private Practice.....	16	1	6

AMPUTATION OF THE ARM ABROAD.

The following figures give a fair view of the world's experience in this operation :

TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DEATHS.
British Mil. Hosp. in Brussels, 1815, Guthrie's Com'ntaries.....	21	4
American War of Secession, Confed. Army, Warren, of N.C.....	92	16
New York Hosp., Bost. Med. Jour., May 1, 1872.....	14	0
Pennsylvania Hosp., " " " ".....	58	5
Boston City " " " " " ".....	14	4
Mass. Gen. " " " " " ".....	36	7
Guy's Hosp. Reports, London.....	15	6
St. Thomas' Hosp., " ".....	2	1
St. Bartholomew's Hosp., " 1853—71.....	45	4
St. George's " " " ".....	3	2
Mr. Richardson, at Birmingham, England, 1853—64.....	32	12
Various German Surgeons, Franco-German War.....	22	10
Mr. Nunnely, Leeds Gen. Infirmary, England.....	62	22
Crimean War, Schmidt's Jahrbücher, Bd. 156, S. 249.....	849	489
Dr. Löffler, Danish War with Prussia.....	19	9
Dr. Beck, at Tauberbischofsheim.....	7	2
Siege of Antwerp, Schmidt's Jahrbücher, Bd. 156, S. 249.....	9	1
Franco-German War, " " " ".....	40	19
Schleswig-Holstein War, " " " ".....	19	9
War of 1866, " " " ".....	7	2
Totals.....	1,366	624

Mortality, 46 per cent.

TRAUMATIC SECONDARY.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Bost. Med. Jour., May, 1872.....	4	1
Pennsylvania " " " " " ".....	9	3
Boston City " " " " " ".....	8	5
Mass. Gen. " " " " " ".....	8	3
Guy's " London.....	12	7
St. Thomas' " ".....	2	0
St. Bartholomew's Hosp., London, 1853—71.....	29	9
St. George's " ".....	3	3
Mr. Richardson, Birmingham, 1853—64.....	15	2
Various German Surgeons, Franco-German War.....	16	9
British Army in the Crimea.....	16	6
Schleswig-Holstein War, Dr. Löffler.....	12	8
Dr. Beck, at Tauberbischofsheim.....	14	3
Maas and Billroth, each a case.....	2	2
Seige of Antwerp, Schmidt's Jahrbücher, Bd. 156, S. 249.....	2	1
Crimean War, " " " " " ".....	146	86
Franco-German War, " " " " " ".....	31	21
Schleswig-Holstein War, " " " " " ".....	12	8
War of 1866, " " " " " ".....	15	4
American War of Secession, Confed. Army, Warren.....	100	38
British Mil. Hosp., Brussels, 1815, Guthrie's Commentaries.....	51	13
Totals.....	507	232

Mortality, 46 per cent.

TRAUMATIC, TIME NOT STATED.

AUTHORITIES.	CASES.	DEATHS.
Circular No. 6, Surg. Gen. U. S. A.....	1,949	414
" " 3, " " " " " ".....	24	5
Schleswig-Holstein War, Esmarch.....	54	19
Lucke, of Berne, Deutsch Zeit. für Chir., Bd. 2, S. 380.....	7	5
Stromeyer's Handbuch.....	4	0
Italian War, Schmidt's Jahrbücher, Bd. 156, S. 249.....	378	216
Hosp. at Langensalza, Stromeyer.....	7	1
Statist. des Hôpit. de Paris, 1861—63.....	16	10
Franco-German War, Schmidt's Jahrbücher, vol. 1856.....	31	12
War of 1866, " " " " " ".....	7	1
Totals.....	2,477	683

Mortality, 28 per cent.

NOT STATED WHETHER TRAUMATIC OR PATHOLOGICAL.

AUTHORITIES.	CASES.	DEATHS.
Trans. Ill. State Med. Society, 1863.....	9	0
Pennsylvania Hospital.....	9	2
K. k. allg. Krankenhaus, Wien.....	72	23
Leeds Infirmary, England, Mr. Nunnely.....	62	22
Edinburg Infirmary, 1857-68, { Dr. E. Gurlt, in Jahresbericht, }	21	12
Glasgow " 1847-68, { Gesamt. Med., Bd. II. }	101	38
St. George's Hosp. Lon. 1864-68, " " "	7	4
Guy's Hosp., " 1861-68, " " "	31	12
London Hosp., " 1862-68, " " "	31	15
Middlesex " " 1867-68, " " "	1	1
Royal Free " " 1862-68, " " "	6	2
St. Mary's " " 1868, " " "	1	0
Arch. Klin. Chir. Bd. II, S. 261. Practice of Dr. Beck....	12	0
" " " " XVII, S. 510-519.....	14	4
" " " " X, S. 891.....	20	12
Totals.....	397	147

Mortality, 37 per cent.

FOR PATHOLOGICAL CAUSES.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Bost. Med. Jour., May 1, 1872.....	3	0
Pennsylvania " " " " " " ".....	4	1
Boston City " " " " " " ".....	5	1
Mass. Gen. " " " " " " ".....	32	4
Guy's " London, 1861-68.....	8	2
St. George's " " 1864-68.....	6	1
St. Thomas' " " ".....	2	0
St. Bartholmew's " " 1853-71.....	42	6
London " " 1862-68.....	5	1
Middlesex " " 1867-68.....	1	1
Kings' College " " 1863-68.....	4	2
Royal Free " " 1862-68.....	1	0
Westminster " " 1861-67.....	3	0
St. Mary's " " 1868.....	1	0
Edinburg Infirmary, 1859-68.....	19	7
Glasgow " 1847-68.....	19	1
Statist. des Hôpitaux de Paris, 1861-63.....	19	9
Med. Reports, British Army.....	3	0
Archiv. Klin. Chirurg., Bd. VIII, S. 926, 928, 1088.....	4	2
Deutsche Zeit. für Chir., Bd. II, S. 380.....	3	2
Leeds Gen. Infirmary, Mr. Nunnely.....	20	1
Totals.....	204	41

Mortality, 20 per cent.

GENERAL SUMMARY OF AMPUTATIONS OF THE ARM.

	LAKE STATES.			ABROAD.		
	CASES.	DEATHS.	PER CENT. MORT.	CASES.	DEATHS.	PER CENT. MORT.
Traumatic primary	15	3	20	1,366	624	46
" secondary	8	0	0	567	232	46
Pathological	3	0	0	204	41	20
Traumatic, time not stated, military cases				2,477	683	28
Time and cause not stated, nearly all civil practice	1	0	0	397	147	37
Totals,	27	3	11	4,951	1,727	35

It appears, therefore, that amputations of the arm abroad have a mortality of 35 per cent., which is more than three times that of the Lake States. Civil cases abroad have also a much greater mortality than military ones, owing to the fact that soldiers are mostly young and vigorous men, and military amputations of the arm are largely done at once on the field of battle, before the patient has been subjected to the deadly miasm of the average military hospital.

(To be continued.)

A CASE OF CYSTOCELE CURED BY SIMS' OPERATION OF ELYTRORRHAPHY.

By R. M. LACKEY, M.D., MAYWOOD, ILL.

Fortunately for womankind, the disease we are about to consider is not of *very* frequent occurrence, yet it is met with often enough, and occasions sufficient suffering to demand of us the most careful study, and the best efforts for its cure.

When the anterior wall of the vagina, which adheres closely to the bladder, becomes greatly weakened and stretched from any cause, a pouch may descend into the vagina, and thus constitute a cystocele, or hernia of the bladder. This pouch may be small, and give but little

discomfort to the patient, and perhaps escape entirely the notice of the surgeon, or it may be large enough to descend to and even protrude from the vulvar orifice, causing the most intense suffering. It becomes filled with urine, which cannot be thoroughly evacuated by the ordinary efforts at micturition, and the urine thus retained decomposes and becomes the source of extensive irritation, vesical catarrh, dysuria, etc.

The suffering is intensified when the patient attempts to maintain the erect position, by a sense of weight and dragging down from the umbilicus, and intolerable tenesmus. The vagina and protruded portion of the bladder become exceedingly tender, so that an effort to pass the finger, or make an examination with the speculum, may be frustrated, unless the patient be first anæsthetized. Owing to the distress occasioned by the erect position, sufferers from this malady are liable to become bedridden, especially as the disease is always complicated with some abnormal position or condition of the uterus. Prolapsus and anterior flexion are perhaps the most frequent forms of displacement met with. Ulceration, chronic inflammation and enlargement may be present, also hæmorrhoids; these latter probably caused, or at least aggravated, by straining while attempting to void urine.

Some of the causes which operate to produce this disease are ruptured perineum, anteflexed uterus, straining, lifting heavy weights, frequent parturitions: and, in general, those agencies which most frequently cause uterine displacements and vaginal weakness and prolapse.

It is only by careful digital examination that cystocele can be detected. In passing the finger within the vulvar orifice it comes in contact with a soft, fluctuating tumor, which can be readily pressed upward. It must be borne in mind, however, that tumors of this character may attend prolapsus of the vaginal walls in conjunction with ascites. If a cystocele be present, by pressing up the tumor the patient will be enabled to evacuate the bladder

perfectly, and the urine contained in the pouch will be fetid and ropy. Should any doubt exist as to the nature of the tumor, a catheter passed into the bladder will pass downward into the vesical diverticulum, and may be felt through the vagina, thus rendering certain the character of the disease.

The measures employed for the cure of cystocele are mainly mechanical support and surgical procedures. Where the tumor is slight and without embarrassing complications, some of the various pessaries, together with astringent injections and proper hygienic management, may be all that is required to afford relief; but where the disease has reached an aggravated form, and is attended with troublesome complications, no confidence should be placed in anything, save the surgical operation employed in the case I am about to relate.

The following case presents a history of interest, running back several years. It will suffice for our present purpose, however, to give briefly its history for the two years preceding the operation:

Mrs. G., aged thirty-eight years: wife of a farmer; mother of six children, youngest three years old; she is rather above medium size; tissues flabby, and poorly nourished. She has borne children rather rapidly, and did not get up well from her last confinement; had chills, pain and tenderness of the abdomen, frequent desire to pass water, dribbling of urine, obstinate constipation, pain, heaviness and throbbing in the vagina, and dragging from the umbilicus. These symptoms were especially aggravated when she attempted to get up and go about, so that, to secure any degree of comfort, she was obliged to spend most of her time in the recumbent position. While suffering in this way, she was treated for ague, inflammation and ulceration of the womb, disease of kidneys, bladder, bowels, etc. Three or four different medical men had successively had charge of her case, without seeming to discover the true nature of her complaint, or affording her any permanent relief. At

the time I first saw her she had been bedridden for more than a year, and was weak and despondent, and unwilling to submit to any further treatment. She, however, consented to an examination, and in passing my finger within the vulva, I found a soft, fluctuating tumor, the size of a hen's egg, well down between the labia majora. The hyperæsthesia of the parts was excessive, and I was compelled to desist from making a thorough examination until she was anæsthetized, which was done. When she was sufficiently under the influence of the anæsthetic I pursued my investigations further, by pressing the tumor upward so as to reach the uterus, which was found prolapsed and enlarged, and the os ulcerated. A catheter was introduced into the bladder, and it passed downward into the vesical pouch, and I was enabled to draw off a quantity of dirty, fetid urine. The vaginal mucous membrane was congested, and covered with a whitish discharge. The case was thus clearly proven to be one of cystocele, with its usual complications. Having stated the nature of the case clearly to the patient and her friends, and given some encouragement as to the success of surgical procedures, an operation was at last agreed to. Astringent applications were ordered for the vagina, and tonics and nutriment by the mouth, in the hope of improving her condition generally and locally, before proceeding further.

Elytrorrhaphy.—This is the elegant term employed to designate the operation for lessening the calibre of the vagina, for the cure of cystocele, prolapsus uteri et vaginæ, rectocele, etc.

It is a long while since the first attempts to perform the operation were essayed, but without complete success until the use of Sims' duck-bill speculum, and the means it affords of perfectly exposing the vaginal walls. The operation now in most common use is known as 'Sims' Operation of Elytrorrhaphy,' and is attended with very favorable results.

In the case here reported, the amount of tissue to be

got rid of was very large, and some doubts arose as to a single operation resulting in complete relief. The patient having improved sufficiently to warrant us in proceeding, the operation was performed as follows:

She was etherized and placed in the position recommended in the operation for vesico-vaginal fistula; a curved sound with tenaculum points was fixed in the os uteri, and the walls of the vagina made to fold over it, so as to determine where union must take place. I then proceeded to denude the edges of these folds, commencing at the neck of the bladder, and extending upward as high as the os uteri. The sound was then removed, and the line of denudation continued transversely, connecting the other two, making a triangular or trowel-shaped space two inches wide at the base. The amount of hæmorrhage was inconsiderable. These denuded lines were then drawn together with fifteen interrupted silver sutures, passed from their point of entrance on one side of the freshened lines through the triangular space to the point of exit on the other side. The upper one, through the base of the space, was passed as a running stitch, so as to shut up the opening that would otherwise be left in the sack formed by this fold of the vaginal walls. This latter point is especially insisted on by Dr. J. Addis Emet, for if the opening is not thus closed, the os uteri becomes engaged in it, and it may also become filled with the discharges.

The operation was tolerably well borne. Some retching followed, and I remained with her while this lasted, and kept a sponge in the vagina to support the weak point, lest the straining should tear loose the sutures. The bladder was emptied with a catheter every five or six hours for five days, when she was then able to dispense with it. The dribbling ceased also. The bowels were kept quiet for a week, and then moved by enema. Half the sutures were removed on the fourteenth day, and the rest on the seventeenth day. On removing the last sutures the union was found to be complete, and the

constriction sufficient to retain the bladder in place. The uterus was in its normal position also. The patient's general health improved rapidly, so that at the end of six weeks after the operation she was able to be up and move around with more comfort than for many months previously. The hyperæsthesia had so far disappeared that she could endure vaginal examination without taking ether.

A report from the case six months afterward shows that the improvement continued permanently ; the cure of the cystocele and its complications was complete. The patient had so far recovered that she was attending to her household duties, and had taken a journey some distance to visit friends.

The results in this case would lead us to believe that this operation should be resorted to more frequently than it is, for the radical cure of vesico-vaginal hernia, and prolapsus uteri, where other means so often prove unavailing ; and I have no doubt it would be, were it not so difficult to get the consent of the patients to operative procedures, except in extreme cases. My object in reporting this case is to place on record some additional evidence of the usefulness of the operation, and encourage its judicious employment.

ACUTE PERICARDITIS—CAUSES—REPORT OF CASES.

By D. A. K. STEELE, M.D., CHICAGO.

(Read before the Chicago Society of Physicians and Surgeons, Feb. 28th, 1876.)

MR. PRESIDENT, AND GENTLEMEN OF THE SOCIETY :

Presuming that you are thoroughly conversant with the anatomy of the "fountain of life," we will at once proceed to consider some of the causes of an acute pericarditis.

Most frequently this affection is secondary in its development, arising in connection with an attack of rheumatic

fever, or in the course of Bright's disease, or resulting from the extension of a contiguous inflammation, as pleurisy or pneumonia; these are certainly the most frequent causes, according to my observation. Among other causes mentioned are low forms of fever, pyæmia, puerperal fever, scarlatina, scurvy, adjacent abscesses, etc. Among primary causes are mechanical violence, penetrating wounds, and "cold," exciting a local inflammation.

CASE I. Pericarditis and Bright's disease—tetanic spasms—death—post-mortem exhibit.

John Crane, miller, aet. 27, German, was admitted to Cook County Hospital Dec. 30th, 1873, during the service of Prof. J. P. Ross. States that he enjoyed good health until seven years ago, when he contracted syphilis, followed by constitutional symptoms. About two and a half years ago, while in the South, had intermittent fever and diarrhoea, for some six months, when he went to New York and was an inmate of a hospital for nineteen months, suffering from general dropsy. Left the hospital four months ago nearly recovered from the dropsy; the right leg still remains a little swollen and has a few ulcers upon it, for the relief of which he was admitted to the ward. After being in the hospital about two weeks, during which time he was up and around the ward, he was attacked with slight rigors. Diarrhoea, nausea and vomiting followed in a few days, with shortness of breath and pain in the region of the heart.

Jan. 17th. On examination find skin hot, tongue dry and brown in centre; appetite poor; patient restless, sleeps poorly. Pulse 120, weak; resp. 20. Auscultation reveals a to-and-fro friction sound all over the præcordial region. Ordered a hot poultice, and gave morphia to control pain. Also quiniæ sulph. gr. iij ter die, and turpentine and laudanum emulsion, with one-thirty-second of a grain of strychniæ sulph., every four hours.

Jan. 18th. Had considerable pain in chest last night,

although during the night he took one gr. morphia ; was restless and uneasy ; friction sound still heard ; area of præcordial dullness is increased.

2 P. M. Patient began to be very restless and uneasy ; has slight delirium.

4 P. M. Lost all consciousness and began having tetanic spasms ; head thrown back ; twitching of the muscles of the face and arms ; pulse full and strong ; breathing slow and stertorous ; pupils contracted, but respond to light. Ordered blisters behind the ears, and bromide potash gr. xv every hour.

11 P. M. Patient has had several spasms, his head is thrown back ; still unconscious. On attempting to have him swallow, spasms are induced. Pulse 140, full and strong. Is winking constantly and rolling his eyes ; both arms jerk and twitch ; legs drawn up.

12 M. Had a severe convulsion, and died.

Post mortem 36 hours after death. Pericardium contained about 4 oz. of serum ; abundant recent lymph covering heart and pericardium. Heart hypertrophied ; lungs and brain healthy ; kidneys small and fatty.

CASE II. Idiopathic pericarditis, with effusion—pneumatic aspiration—death—autopsy. (This case was reported in full before the Society, Oct. 12th, 1874.) The following is a synopsis :

Edward S., aet. 45, laborer, Germany ; weight one hundred and seventy pounds ; height five feet eleven inches. Was admitted to the County Hospital Sept. 22nd, 1874, stating that he had been well until ten weeks prior to admission, when, becoming overheated, he took a violent cold. Had several slight chills, followed by high fever and cramping pains in left side in region of the heart ; pain was aggravated by a deep inspiration. Had no cough, appetite poor, bowels costive, breathing labored. This difficulty continued for about four weeks, when he began to convalesce and went to work. In about three weeks, after another exposure to cold, he was again attacked with pain in left chest, similar in character to

the first; began to cough, raising a scanty frothy sputum; breath has gradually become shorter for the past two weeks. Is very restless and uneasy. Has never had rheumatism or syphilis.

On admission, find patient a large, well nourished man; lies on left side, with shoulders elevated and thighs flexed on abdomen; breathing hurried and laborious; face anxious and cyanosed; skin cool and moist; tongue flabby, tremulous, and coated brown. Pulse 132, small, thready and irregular. Resp. 28.

Physical examination. Inspection reveals bulging of left chest and præcordial region, partial obliteration of the intercostal spaces and decided loss of motion in left chest; epigastric protrusion; heart communicates no thoracic shock.

Percussion gives complete dullness over a somewhat triangular space in left chest, the base of which would correspond to a transverse line drawn from left axillary region three inches below left nipple to a point two inches to right of xiphoid appendix, apex five inches above and one and a half inches within left nipple. The dullness is but slightly altered by postural change. Behind, fair resonance.

On auscultation, bronchial breathing at apex of left lung; below third rib, an absence of all lung sounds; behind, over apex of left lung bronchial breathing, over middle, broncho-vesicular with mucous rales; below bronchial again, with fine crepitant rales and occasional friction. On listening, over cardiac region find an absence of all heart sounds; along the right border of sternum, a few to-and-fro pericardial friction sounds. Applied warm jacket poultice and gave alcoholic stimuli. Dyspnœa increasing, next morning Prof. H. A. Johnson was summoned, and tapped pericardial sac with the aspirator, through the fifth intercostal space, two inches to the left of sternum, withdrawing about one ounce of bloody serum, with no inconvenience to the patient. He was then given carb. ammonia, quinia and camphor, and the chest painted with tr. iodine.

24th. Expresses himself as feeling a little better; breathes easier. Continued treatment, with but little change of symptoms or physical signs, until 28th, when a pleuro-pneumonia of the left chest manifested itself, with a corresponding increase in the gravity of the symptoms. Warm poultices were kept continuously applied to the chest, with artificial heat to the extremities, and the exhibition of stimulants.

30th. A consultation of the staff was held, and it was determined to again use the aspirator. Dr. Johnson introduced the canula near the point of previous puncture, but carried it a little higher, and on turning the stopcock was rewarded by seeing a full stream of bloody serum flowing from the pericardial sac into the receiving bottle. Eleven and one-half ounces were withdrawn, when the canula was removed. No unpleasant symptoms occurred. The immediate effect of the operation was to relieve the turgescence of the superficial vessels, and steady and strengthen the heart's action. Breathing became easier, and the apex beat of the heart could be seen for the first time, striking a little to the left and higher than normal; cardiac sounds distinctly heard; bulging of intercostal spaces less marked. Half an hour after the operation, pulse 132; resp. 28.

Oct. 1st. Pneumonic inflammation more extensive; extremities cold, radial pulse imperceptible; heart's action rapid, feeble and irregular; general cyanosis; constant nausea and vomiting; gradually sank, and died at one o'clock the following morning.

Autopsy fourteen hours after death. On lifting up sternum, found pericardium immensely distended with fluid, occupying nearly the whole of the left chest, and overlapping the right lung for two or three inches. Diaphragm depressed, moderate pleuritic effusion in both chests. On opening pericardium, found it much thickened and congested, containing a very large amount of bloody serum. Point of last puncture readily seen; point of previous puncture closed by adhesive inflam-

mation. Heart hypertrophied, dilated, and apparently inflamed, outer surface covered with tenacious, coagulated lymph, arranged in segregated layers resembling villi, varying in depth from one-half to one inch, and adhering so firmly to heart as to be with difficulty removed. Pericardium adherent to heart around base by means of this plastic deposit. Left lung throughout pneumonic, in a state of red hepatization, and firmly adherent to chest walls by recent pleuritic adhesions; right lung congested; kidneys, liver and spleen very much congested; other organs not examined. The heart and sac together weighed four pounds.

CASE III. Rheumatic pericarditis and organic disease of heart—death—post-mortem.

Jan. 4, 1876. I was called to see Jennie S., æt. 11, American, who gave the following family history: Father dead one year, from an overdose of tartar emetic, prescribed by a drunken nurse. Father had been in failing health for a number of years; was troubled with slight cough, shortness of breath and palpitation of the heart; was supposed to have heart disease. Mother living and well, although never robust. Four sisters living, all in poor health, three of them suffering from organic disease of the heart, hypertrophy with mitral insufficiency. All of the children had scarlatina when small; none of them ever had rheumatism, except the little patient, who four years ago, for the first time, suffered from acute articular rheumatism; was treated by Dr. W. T. Montgomery, with alkalies internally, and tinct. iodine and hot fomentations locally; was sick about four months. Every winter since then has had attacks, lasting from a few days to a number of weeks. For past three years has been troubled with palpitation, shortness of breath on slight exercise, and occasional cough. Was treated by me ten months ago for rheumatic endocarditis and pneumonia; was sick then about three weeks; ever since has had a loud mitral regurgitant murmur and gradual enlargement of the heart. General health, aside from this,

has been good ; has gone to school most of the time. For the past few days has complained of pain in the ankles, knees, wrists and shoulders ; at times feels a little feverish, sleeps poorly. Find joints swollen and tender, skin hot, tongue furred, pulse somewhat accelerated. Prescribed potassæ acetatæ, potassic iodide, and tr. digitalis, with Dover's powders at night ; affected joints to be rubbed with chloroform liniment, and swathed in cotton wool.

Jan. 5th. Rested well ; feels a little better.

6th. Complains of gastralgia and nausea. Discontinued the acetate and iodide of potash, and substituted the bicarb. of soda. Ordered morph. sulph., gr. $\frac{1}{6}$, as required to relieve pain.

7th. Gastric irritability less, although still no desire for food. Pulse, 110, full. Joints not so painful ; has a troublesome dry cough ; lung sounds about normal, left lung a little feeble.

8th, A. M. Very restless last night ; complains of pain in region of heart this morning. On making a stethoscopic examination of chest, find a harsh to-and-fro pericardial friction sound over nearly the whole præcordial region ; valvular murmur more distinct ; heart's action strong and full. Applied hot flaxseed poultice to the entire left chest. P. M. Exquisite pain over the entire præcordia ; breathing hurried ; eyes congested ; tongue heavily furred ; pulse, 130. Gave saline cathartic, and continued hot flaxseed meal poultices.

9th. Dr. S. A. McWilliams saw the patient with me. Pain is excruciating ; constant dry cough. Requires hypodermic injections of morphia, gr. $\frac{1}{8}$, morning and evening, to procure any rest. Ordered, pot. iodide, gr. v ; tr. digitalis, gtts. xv ; tr. gelseminum, gtts. viij ; syr. prunus. virg., 3j, every three hours. Applied fly blisters locally.

15th. For the past week the above treatment has been continued, with the occasional substitution of potassic bromide for the morphia, which, however, does not con-

trol the pain. The general condition of the patient remains about the same. Pulse a little above 100 and rather feeble. Physical signs unchanged.

16th. No pain in joints; severe pain through the temples and in præcordia. She takes milk, beef tea and wine freely. Bowels have been kept soluble with citrate of magnesia.

20th. Physical signs as before, except that the friction sound is not so distinct; heart's action more feeble, and occasionally intermits; cerebral pain very severe. At times is in a state of maniacal excitement, occasional delirium; rests only for a short time, and then under the influence of morphia; takes nourishment pretty well.

21st. Passed a very restless night; constantly sits up with the chest inclined forward; sleeps in this position; can not lie down; says she can not breathe if she does, face becomes purplish and anxious when she attempts it. Pulse, 115, intermittent and feeble. Get increased cardiac dullness in front; friction sound not so distinct; heart's impulse still seen and felt. Applied emplast cantharidis to chest.

22d. Symptoms unchanged. Chest so tender as not to admit of an examination; covered it with cotton wool and oil silk.

23d. Pulse, 120, small, weak and irregular; respiration labored; facial expression more anxious. On examination, decided loss of motion in left chest; grazing pericardial friction still present, but feeble as compared with that first heard. P. M. Delirious; gradually sank, and died at nine o'clock.

The mother, an intelligent lady, readily granted permission to hold a post-mortem examination, and twenty hours after death I made the autopsy, in the presence of Dr. P. S. Hayes and Messrs. Beale, Bean and Warren, students of medicine. Incision from manubrium to umbilicus, down mesial line. Both pleural cavities contained a considerable quantity of serum. Although there were no evidences of a recent inflammation, a few old

pleuritic adhesions were found. Right lung normal; left lung small and somewhat atrophic; crepitates throughout; no tubercle. Pericardium firmly adherent to the heart in front and at the sides; behind distended, with flakey serum to its utmost extent. Behind it was intensely congested, and at one point seemed almost gangrenous. On laying open the sac, found the firm adhesions from recent bands of lymph already noted. (These adhesions readily explain why we got the cardiac sounds and frictions so distinctly after the effusion occurred. Ordinarily, after a pericardial effusion, the heart sounds become feeble or are lost, and the impulse disappears.) Heart and pericardium weighed $20\frac{1}{2}$ ounces. Weight in this patient should not have exceeded nine or ten ounces. On opening the left ventricle, find mitral valve thickened and roughened by a deposit about the margins of the curtain, while just within the left auricle there is a patch about the size of a silver half dollar, of rough, thickened deposit, in the endocardium. The endocardium is red and inflamed, while the muscular tissue of heart was unusually vascular, probably the seat of a rheumatic inflammation. Stomach apparently healthy. Liver enlarged and congested. Other organs not examined.

These cases, you will observe, were all connected with some other grave disease.

SPONTANEOUS CURE OF AN OVARIAN TUMOR.

By OWEN WRIGHT, A. M., M. D.,

LATE MILITARY SURGEON, OF MASON, ILL.

On the 20th of November, 1875, I was called to see Mrs. A. B. I arrived at the house at 4 o'clock, P. M. She was expecting to be confined at any hour, but was not presenting any symptoms of labor. At 10 o'clock of same day, she was taken with a chill and fever; and

when I saw her, the breathing was 28, and the pulse 200 per minute. I was not able to ascertain the cause of the excitement, although I knew it was of local origin. I remained with her all night, and met the indications for treatment according to my abilities. At 5 o'clock the next morning, labor came on and terminated favorably in one hour. It was not till after the child was born, that I was able to discover the cause of the chill and fever.

In the region of the left ovary was a tumor, that the lady had never noticed ; she was so very large (although a medium-sized woman) that I did not find it, notwithstanding I moved my hand over that region several times. The patient was so feeble, that I gave her constitutional treatment the following four weeks. All this time the tumor continued to enlarge ; and its pressure from within outwards, caused an injury to the external parts, immediately above the os pubis.

My diagnosis was a cystic tumor of the ovary ; and the 30th day after delivery, I performed the operation of paracentesis, and drew off about one gallon of serous fluid. It continued to discharge one week, during which time, the parts exterior, all of three by five inches, sloughed away, so that the remains of the tumor could be seen. During another week, the wound failed to heal, and a second like tumor reached half the size of the former. At this period the prospect of success was not very flattering. Another week under treatment, and the tumor burst, and almost at the same time the fluid entered the womb through the fallopian tube and was discharged through the vagina. After this the wound began to heal ; the vaginal discharge continued occasionally another week. The constitutional symptoms improved rapidly, and at the end of three months, the mother walked out doors.

During her pregnancy, the mammary glands did not increase in size. I do not think either of them would have weighed over one ounce, till about the ninth week

after her delivery, when she noticed that her breasts were filling.

She is about 30 years old ; her weight is 130 pounds. She has borne two other children, and each time was afflicted with nursing sore mouth.

CONCUSSION OF THE BRAIN.

BY F. W. MERCER, ASST. PHYSICIAN.

Reported from Notes made June, 1875, at Illinois Southern Hospital for the Insane.

J. C. W., æt. 14, an epileptic, while climbing a ladder from the barn floor to hay mow had a fit, and fell about ten feet, striking partly upon the vertex and right parietal region.

The attendant who saw him fall, went immediately to his assistance, and found him insensible. With little delay, the patient was carried to his ward and his condition reported. I saw him about twenty minutes after the injury ; he was comatose ; breathing, slow and somewhat labored ; pulse slow, eyes closed, and pupils dilated. An examination disclosed nothing but free hæmorrhage from the right ear ; he had already lost about three ounces of blood, and the flow from the ear continued steadily. Instruction given to keep him quiet in bed. Saw him again in the evening, about five hours after the injury ; had been vomiting, and could be aroused with difficulty. Hæmorrhage from ear not so free, but accompanied by a large amount of watery fluid, saturating his pillow. Pulse, 100 ; temperature, 95°. Ordered cathartic and cold applications to head.

Morning of 3rd found him sitting up, and was informed by the attendant that the patient had insisted upon leaving his bed and had walked about the ward very unsteadily, catching at articles of furniture for support, and complaining that everything about him was spinning

around. The bowels had moved during the night; the stomach had become quiet, and a large amount (several ounces) of bloody serum escaped from the ear; pulse, 120; temperature, 102°. Ordered continued rest in bed, cold to head, and carefully regulated nourishment. In the evening he appeared less restless, inclined to drowsiness, but easily aroused; pulse, 125; temperature, 103.2°; discharge from ear much diminished.

Morning of 4th. Patient said to have been restless first part of the night, but quiet and appeared to sleep after midnight; discharge from ear has ceased. His mind appears clear, and he answers questions well; wants to dress and be permitted to walk about the ward. Pulse, 98; temperature, 99°. Ordered continuation in bed, with cold to head.

Evening. He is quite talkative; no discharge from ear; pulse, 85; temperature, 99°.

Morning of 5th. He is out of bed; complains of dull headache; pulse, 90; temperature, 99°. Directed that he should be kept quiet; discontinued application to head.

Evening. pulse, 82; temperature, 99°.

6th. Out of bed this morning; pulse, 85°; temperature, normal.

8th. Is going about the house as usual; appears well.

REPORT OF THREE CASES OF UTERINE FIBROID TUMORS TREATED BY ERGOTINE,

AT THE DISPENSARY OF THE WOMAN'S HOSPITAL OF THE
STATE OF ILLINOIS.

BY D. A. K. STEELE, M.D., ASSISTANT SURGEON.

(Read before the Chicago Society of Physicians and Surgeons, March 27, 1876.)

Simultaneously with the publication of Hildebrandt's articles on the curative influence of ergotine upon fibroid tumors of the uterus, a general investigation was entered upon by the medical world to determine by

practical experiment the influence exerted by this drug over a hitherto almost incurable and often undiagnosed disease. The only method of determining its clinical value, is by a careful synopsis of cases treated—not the successful ones alone, but all as they fall under the reporter's observation. The following report is made, not for its intrinsic value or for the development of any new features, but simply as an addition to the literature of this important field of observation. The cases are from notes by the House Physician, Dr. Harriet M. Kollock.

CASE I. Mrs. M. N., (colored) American, aged 34, presented herself for treatment at the dispensary, March 21st, 1875, giving the following history: Married at 14; menstrual periods always regular until the past year. Has no children, but had two miscarriages eight or nine years ago. She thinks they occurred about the third or fourth months of pregnancy, and were induced by over work. One year ago she had a severe attack of sickness and was confined to her bed for six weeks, suffering from extreme pain through the uterus and lower part of abdomen. Her physician called it "inflammation of the womb." Since that time her menstrual periods have been a little more profuse and have occurred more frequently, until now there is an interval of but two weeks or less, and they continue nine or ten days. Formerly lasted but three or four days, with a month's interval. She complains of severe pain through the pelvis, especially in the left side, which is increased by walking or standing any length of time.

Examination revealed a fibroid growth in the left and posterior portion of uterine wall that could be distinctly outlined through the rectum and the left abdominal wall. Cervix hard and nodular; depth of womb three and one-fourth inches.

Treatment advised, was daily hypodermic injections of twelve drops Squibb's fl. ext. ergotine.

This treatment was continued for four or five days, but

as each injection produced considerable local disturbance and there were evidences of abscesses forming, both on arms and abdomen, where injections had been inserted. it was deemed best to discontinue this mode of administration, and the patient was directed to take ten drops twice daily, internally. She complained of having strong uterine contractions after each injection, lasting from half an hour to one hour, causing her considerable pain. The same symptoms were felt after each dose taken internally, but in a less degree.

April 14th. Patient has now taken the ergotine steadily for twenty-four days; general health much improved; has had one menstrual period during that time, continuing five days, after an interval of eighteen days. On examination the tumor appeared notably decreased in size.

June 15th. She reported at the dispensary, having taken the ergotine regularly since the 21st of March, (about three months); continued improvement in health. Periods occur at intervals of about 24 days and continue five or six, less profuse than before.

Examination. Tumor about in the same condition as when examined April 14th. Ergotine was then discontinued.

CASE II. Mrs. E. G., American, æt. 31, applied for treatment June 5th, 1875, stating that she began menstruating at the age of 13; had one period, when she took cold and had no more for six months; with this exception, was regular until she married, seven years ago. Since then, the periods have occurred more frequently, lasting from five to ten days. The intervals are never longer than three weeks, and any excitement or overwork will bring on a profuse flow, which is usually accompanied by severe pain and the expulsion of large clots. Had a constant leucorrhœa two years ago, which was improved by local treatment. Now it occurs only just before and after menstruation. Complains of pain in the left ovarian region, in the left breast, and head;

severe backache and palpitation of the heart; bowels constipated; appetite poor; menses frequent and painful. Was treated two years ago for tumor, at which time the abdomen was much enlarged; general decline of health for past two years.

On examination find a fibroid tumor occupying the left anterior uterine wall. It can be distinctly outlined through the abdominal walls, the fundus of uterus can be felt about midway between the pubes and umbilicus. Sound enters womb three and one-fourth inches.

June 7th. Commenced treatment by injecting in the arm, near insertion of the deltoid, twelve drops of Squibb's fl. ext. ergotine; this was continued daily until July 28th. The injections gave rise to no local irritation, but caused the patient to complain of severe uterine contractions and increased pain in the left breast, continuing about an hour after each injection.

June 30th. Patient reported her general health much improved. Her menstrual period continued but four days, and the interval since the last period was increased by five days.

Examination shows little or no difference in the size of the growth.

July 28th. Patient again examined. Tumor about the same size as when she applied for treatment; general health decidedly improved; menstrual periods occur now about once a month and are not at all profuse.

The ergotine was discontinued.

Jan. 7th, 1876. Patient has had no treatment since July 28th (six months.) Periods have been regular, painless and not profuse during that time.

Examination shows the tumor to be gradually increasing in size.

CASE III. Mrs. R. L., American, æt. 19.

Aug. 4th, 1875. Has been married eighteen months; was always regular and well until prematurely confined of a six months child, one year ago. She got up six days after confinement. Had no menstrual period

for three months, then had a slight show which gradually increased until for the last six months the flow has been constant, soiling three napkins daily; it is sometimes mixed with a leucorrhœal discharge. Complains of a constant pain through the uterine and ovarian regions; appetite good; bowels constipated.

Examination reveals ulceration of the cervix and a fibroid tumor in the anterior wall of the uterus; sound passed to the depth of three and a half inches. The ulceration was treated by an application of strong nitric acid, repeated again after an interval of two weeks, which entirely cured it.

Twelve drops of fl. ext. ergotine were hypodermically injected daily until Sept. 26th, when the tumor was found to have almost entirely disappeared. The hæmorrhage ceased entirely, after the first injection of ergotine, her menstrual period occurring the latter part of August, and again in September after a month's interval, and lasting but four days each time; all pain had vanished and her health much improved. The injections were discontinued and the patient advised to take twelve drops of the ergotine twice daily for a couple of weeks, and then return for a subsequent examination.

Oct. 23rd. Patient discharged, cured, the tumor having entirely disappeared, leaving nothing but a slight thickening of the anterior uterine wall. Depth of uterus two and a half inches.

Dec. 18th. Patient again examined. Uterus in a healthy condition; menstrual periods regular; general health good.

Editorial Correspondence.

AMERICAN GYNECOLOGICAL SOCIETY.

It is about a year since Dr. James R. Chadwick, of Boston, conceived the idea of forming an American Gynecological Society, the object of which should be the promotion of knowledge in all that relates to diseases of women and to obstetrics.

After consulting personally and by letter with a number of the leading gynecologists of the United States, Dr. Chadwick called a meeting to be held on the 3rd of June, 1876, at the rooms of the Academy of Medicine, No. 12 West 31st Street, New York City.

The call was made by circular letters directed to such gentlemen as it was thought would be sufficiently interested to give their time and attention to the subject. In response to this call, between twenty and thirty prominent practitioners assembled, among whom were Drs. Peasley, Barker, Thomas, Lusk, Skeen, Trask, Mundé, Sims, Byrne, Noegerath, Goodell, Chadwick, Sinclair, Jenks, Parvin, Bixby, Taylor, Byford, etc.

The meeting was called to order by Dr. Chadwick, who moved that Dr. Peasley act as temporary chairman. The motion prevailed, and in taking the chair, Dr. P. stated the object of the meeting in a short but very appropriate address.

Dr. Chadwick was elected secretary *pro tem*.

On motion, the chairman appointed a committee, consisting of Drs. Thomas, Byrne and Parvin, to report a constitution and by-laws for the government of the society.

Dr. Barker entertained the gentlemen present by some remarks in reference to the objects and benefits of the organization until the committee entered with the report. The constitution and by-laws as reported by the committee—after discussion, in which Drs. Barker, Noegerath,

Sims, Parvin, Goodell, Chadwick, and Byford, took part—with very slight modification, were adopted.

A committee was then appointed by the chair to nominate permanent officers.

Drs. Sinclair, Trask, Lusk, Noegerath and Jenks constituted the committee.

The committee retired, and in a short time reported the names of Dr. Fordyce Barker, of New York, for President; Drs. Washington L. Atlee, of Philadelphia, and Wm. H. Byford, of Chicago, for Vice-Presidents; Dr. James R. Chadwick, of Boston, for Secretary; and Dr. Paul F. Mundé, of New York, for Treasurer.

These officers are, ex-officio, members of the council. Drs. J. Marion Sims, of New York; Lyman, of Boston; Goodell, of Philadelphia; and Parvin, of Indianapolis; were nominated as the other members of the council.

The report was adopted. This completed the organization of the society, whereupon the temporary chairman vacated the chair in favor of the president elect.

The future terms of membership are, that the candidate's name shall be presented by some member of the society to the council with an acceptable paper from the former on some subject contemplated in the organization, and ten dollars as the annual contribution. If the report of the council is favorable, and the candidate receives two-thirds of the votes of the members, he shall be declared elected.

The first annual meeting of the society is to take place in New York City, Sept. 13th, 1876, at the rooms of the Academy of Medicine, at which time it will be determined when the regular meetings will be held.

After the adjournment of the society, the council was called together by the president to make arrangements for the first annual session. The council appointed Drs. Mundé, Lyman, Goodell and the secretary to procure papers and make such arrangements as are necessary for the accommodation of the society.

Several papers are already promised, and it is confi-

dently expected that a sufficient number of contributions will be received to make the meeting one of great scientific interest.

Entire unanimity prevailed, and I think we may reasonably expect good results from the harmonious co-operation of the gynecological practitioners of this country.

The profession of New York complain of the effect of hard times upon their cash receipts. W. H. B.

The following letter has been received from Iowa :

Gents. Mangerers of the Medical Departments.

jents Sir.

I want to know if I can make A Rangements with you to come & visit your Colledge. I have A man that is A live & is all Rite & his Neck is Broken the Boan is cleair Dislocated & is cleair A Peat it does not set one the Rite Place By an Half inch & he cant hold his head up onely By Bracers. it has Ben Broken A Bout 21 years he is the onely man that is liven in the none world that has got his Neck Broken or Dislocated he is A Object of cherity. Which he is the onely Person one Reckord of the kind & I want to find out from yu how meny Studiance yu have their at yu school & I want yu tu see yu Studiants & see how much of A Purce they will give me tu Bring him their How much each caller will give me to bring him their & then he will let any of the mangers Exam his Neck & Explain it to the school Why he lives & how he lives I cant explain it But yu can. he is tolible harty his health is tolible good, at the Preasant time As soon As yu can convenity see the Scollars at school & yu can Asitain what they will Each of them will give A Peace & Board him & my Self for the time that yu all Keep us their I think that 24 Hours will be long A nuff at A Place.

So Pleas let me know your conclucion as Soon as Possible

Reports of Societies.

The Twenty-sixth Annual Meeting of the Illinois State Medical Society was held in the chapel of the Industrial University, Champaign, May 16th, and continued in session three days.

FIRST DAY.

The meeting was called to order by the President, T. D. Washburn, and prayer was offered by Rev. W. G. Pierce, of Champaign, and several pieces of music were performed by the students of the University.

Dr. S. H. Birney, of Urbana, chairman of the committee of arrangements, on behalf of the committee and the citizens of Champaign and Urbana, delivered an address of welcome. Dr. J. M. Gregory, LL.D., Regent of the University, welcomed the Association to the halls, grounds and recitation rooms belonging to the University, and announced several exercises, prepared by various members of the faculty, for the entertainment of the members of the Association.

Dr. J. H. Hollister, of Chicago, replied to these addresses on behalf of the society, after which the society adjourned until afternoon.

AFTERNOON SESSION.

At the opening of the afternoon session, Dr. E. R. Willard, of Wilmington, and Dr. Worrell, of Bloomington, were appointed to serve on the Board of Censors, in place of absentees on that committee.

Dr. Massey read the report of the Committee on Practical Medicine, which elicited a very interesting debate.

Dr. Hill, of Jerseyville, read the report of the Committee on Diseases of Children, which was followed by a discussion in regard to the food for children brought up by hand, and in regard to the treatment of cholera infantum.

The report of Dr. McClelland, on Medical Jurisprudence, was read by the Secretary, Dr. T. D. Fitch.

The society adjourned until Wednesday morning.

The evening was spent in witnessing some fine experiments with the spectroscope, by Prof. Robinson; in seeing Prof. Miles show, by proper illustrative apparatus, the movements of the intercostal muscles in the human subject; and in visiting the Art Gallery, the Library, and other halls of the Industrial University.

SECOND DAY.

The Association re-assembled at 8 o'clock, and Dr. E. S. Hayes read the report on Electrical Therapeutics.

Dr. T. D. Fitch presented his resignation of the office of Permanent Secretary, which was accepted, and a vote of thanks, offered by Dr. Worrell, and passed unanimously, expressed the thanks of the society for the able and faithful manner with which he had discharged the duties of the office, so long held by him, and for the courteous manner with which he had always treated his fellow-members.

On motion of Dr. Hollister, the annual dues of members was fixed at \$3.00, until otherwise ordered by the society.

Dr. F. C. Hotz read a report on Otology.

Dr. Moses Gunn presented the report on Surgery.

A supplementary report on Treatment of Diseases of the Hip-joint, was read by Dr. S. H. Birney.

AFTERNOON.

Dr. Jackson read a report on Gynecology.

Dr. Slater read an abstract of his report on Placenta Prævia.

The Nominating Committee reported in favor of Chicago as the next place of meeting, and reported a full list of officers, of which the following are the more important: For President, T. D. Fitch, Chicago; First Vice-President, S. H. Birney, Urbana; Treasurer, J. H. Hollister, Chicago; Permanent Secretary, N. S. Davis, Chicago.

The report was adopted.

Dr. Albin's report on Necrology was read, and Dr. Ransom read a volunteer paper on Suppositories.

At four o'clock the members of the Association witnessed a military drill of the students of the University, and at five a very interesting series of exercises in calisthenics by the female students of the University, under the direction of Miss Allen. In the evening the Association re-assembled in the chapel of the University to listen to the annual address of the President, and an address by the Regent of the University. Both these reports were ordered published in the Transactions of the Society, and the recommendations of the President in his address were referred to a special committee, consisting of Drs. W. W. Chambers, J. W. Freer and H. Z. Gill. The exercises of the evening were enlivened by music performed by Mr. and Mrs. Baker, and by the reading of several pieces by Miss Bryant.

THURSDAY.

Dr. Sarah Hackett Stevenson, of Chicago, read a report on the Progress of Physiology, the conclusion of which was greeted with applause.

Dr. J. H. Hollister read a volunteer paper on Chylous Urine.

Dr. D. E. Foote read a report on Obstetrics.

Dr. J. H. Hollister, the Treasurer of the Association, submitted his annual report.

The Secretary, Dr. T. D. Fitch, also submitted his annual report.

A communication from Dr. E. W. Gray, of Bloomington, giving reasons why a State Board of Health should be organized in Illinois, was read; also a communication on the same subject from the Jersey County Medical Society.

A series of resolutions, signed by Dr. E. P. Cooke, and adopted by the Woodford County Medical Society, with reference to medical education, was adopted.

Dr. Chambers moved the adoption of a resolution for the appointment of a committee to memorialize the Leg-

islature of Illinois with reference to the passage of a law creating a State Board of Health.

After amendments suggested by Dr. Earle, and accepted by Dr. Chambers, the resolutions, as follows, were adopted :

Resolved, That a committee be appointed to memorialize the next Legislature on the subject of the appointment of a State Board of Health, and that, with proper modification, the act by which the Board of Health of Massachusetts was inaugurated, be submitted to the same, as a basis for the Illinois State Board.

Resolved, That, as members of the State Medical Society, each one shall consider himself bound to urge the propriety of a State Board of Health upon the Representatives from his district.

Dr. J. W. Freer was chosen chairman of the Memorializing Committee.

The Association proceeded to elect delegates to represent the body in the several State Associations of the Northwest, with the following result :

Indiana—Albin, of Neoga, and W. Brinton, of Tuscola.

Wisconsin—D. W. S. Caldwell, of Jo Daviess, and D. E. Foote, of Belvidere.

Missouri—G. W. Jones, Danville, and R. Roscolton, Peoria.

Iowa—S. C. Plumber, Rock Island, and T. D. Fitch, Chicago.

Ohio—S. H. Birney, Urbana, and O. P. Crane, Carbondale.

Michigan—J. H. Hollister and Edmund Andrews, Chicago.

After the adoption of a series of resolutions of thanks to the faculty of the Industrial University and the people of Champaign, the Association adjourned.

Hospitals.

COOK COUNTY HOSPITAL—SURGICAL DEPARTMENT.

SERVICE OF DR. BOGUE.

(Reported by Dr. FENN.)

March 11, 1876. Dr. Bogue presented and made remarks on the following cases :

1. Dislocation of the right shoulder downward ; four weeks standing ; plump German ; aged 45 ; anæsthetized slowly. The operation of reduction was begun in the usual way by placing the heel in the axilla and making traction ; manipulation to cause free movement in the joint. It was not till after extreme and long continued exertion when it seemed that every attempt would fail, that the head of the bone was found to be in place. The arm was put in a sling and a wet compress ordered for the shoulder.

2. Operation for piles. A healthy, well developed young man ; ether given by means of an enameled leather cup open at both ends and made to fit over the nose and mouth, filled with spongiopiline. Ether is thrown on sparingly through an opening in the cap of the bottle ; anæsthesia was produced very slowly.

Dr. B. began the operation by inserting the two index fingers within the rectum. By pulling in opposite directions he dilated the sphincter sufficiently to obtain a fair view of the folds of hypertrophied membrane. Taking hold of these folds with ring forceps he brought them down one at a time, fixed on the clamps and destroyed them with the hot iron ; sweet oil was smeared on the eschar ; a wet compress was ordered, and opium if necessary.

March 14. 1. Crushed hand—loss of fingers. A ragged, dirty boy just brought in from a lumber mill in the vicinity. The remaining fragments of fingers were trimmed up with bone forceps. One slightly bleeding artery was ligated ; oakum and bandage.

2. Necrosis of lower jaw. A little girl six years old. It has continued a year and a half; there is little doubt, therefore, that the necrosed bone is ready for removal. Ether was given. On examination and cutting, it was found that a piece of dead bone lay along the side of the jaw, probably separated for a year but held by thickened tissue; new bone has formed in abundance; dressed with a bit of sponge only to keep clean.

3. Anchylosis of the knee of long standing. Young man; has always gone on a crutch. The attempt is to be made to get the knee into a condition to be of use to him. If there is any motion it is very slight. The deformity from malposition of the head of the tibia and from the position of the leg at right angles to the thigh is considerable.

The preliminary operation will be the boring of the knee both through the head of the tibia and partially through the track of the joint, to induce softening; the object is ultimately to liberate the patella, and, if possible, straighten. After the boring, some tendons were partially divided. All efforts to straighten or to cause motion except in the slightest degree, failed. The knee was packed in oakum and wound with bandage to await results.

March 18. 1. Hydrocele injection. A fair looking young man. Disease began twelve months ago. The scrotum was punctured, fluid drawn off and the sac injected with compound solution of iodine in proportion of fifteen grains of iodine and thirty grains of iodide of potassium to one ounce of water. The application was evidently very painful, especially when the kneading began; fomentations ordered to be applied in a few hours when pain shall have subsided.

2. Ununited fracture of the tibia; injury last December. It has been bored once with no other result than to produce suppuration for a few days; boring a second time. No anæsthetic.

3. Street car injury. Boy 9 years old, just brought

in; lacerated flesh wound of left leg, destroying the greater portion of the muscles of the calf, not opening joints; ligamentum patellæ exposed. The right tarso-phalangeal joint was laid open by a broad wound obliquely across the dorsum of the foot. An attempt was made to approximate the edges of the wound of the leg by a stitch or two in the lower portion. A weak solution of alcohol in water was applied over the wounds and the patient was ordered one grain of quinine three times a day, and milk; the leg to be placed in a sling.

4. Chronic caries of tibia, upper third. A young man apparently healthy. He says he received a charge of shot in his leg twenty years ago; he has been from place to place, and the attempt now to gouge out the decayed bone is only one of a series which have already been made. He will probably never get well.

March 21. 1. Anchylosis of the knee. Bored last week; no signs of inflammation. While ether was being given preparatory to some further trial, Dr. B. remarked concerning the improved method of giving ether, that it was both more economical and safer. The other day when this patient was first put to sleep, but three ounces of ether were used. By the usual way, a pound bottle full would have been consumed; of course the smaller the quantity the safer.

When anæsthesia was complete, the leg was brought over the end of the table, an assistant held the thigh firmly, and Dr. B. attempted to break up the adhesions, using an amount of force that seemed to threaten the popliteal vessels. By repeated attempts at both flexion and extension, the leg was finally carried through an arc of more than 45 degrees. A loud cracking sound greeted the ears of all who were in the room; blood flowed freely from the wounds of the former boring; without doubt it came from the ends of the bone. The patella was freed. He will have to go back now for another period of fomentations and oil silk.

2. Operation for stone. Bohemian; short and fleshy:

over 70 years of age. He has had trouble in making water for a year; great discomfort for the last five months; pain at the completion of the act of making water, which continues for a little time or until the bladder gradually fills. He urinates every hour and passes a little blood, more when up and about than when sitting or lying.

Dr. B. exhibited a Van Buren's sound and showed also the difficulty of always getting positive evidence even where stone exists. He remarked that the operation had been undertaken without finding stone and even without reaching the bladder; he hoped we should be more fortunate. Etherization in this case was very complete, fifteen minutes having been the time required to put him asleep. The operation was begun and not completed till twenty-five minutes more had elapsed; it illustrated the patience and perseverance needed to succeed sometimes where failure is wholly unlooked for. The difficulty was partly owing to an enlarged prostate and unusual depth of perineum. By a pertinacity worthy of success the stone was finally picked off the floor of the bladder with the forceps over the spot where it lay; by an effort at tossing with the tip of the finger in the rectum, the object was seized and brought forth. The stone was a thick disk with symmetrical rounded edges; weight about four drachms.

March 25. Dr. B. remarked of the old man operated on for stone at the last clinic that he was doing well. Urine passed freely by the natural route. At first the circulation was 96, yesterday it was 80, to-day it is less. The only trouble had been the large distension of the bowels with gas; its passage was promoted by injections of salt and water.

1. Necrosis of bones of the index finger. An incised wound of the first phalangeal joint having failed to unite. Amputation.

2. Necrosis of tibia. Considerable dead bone has been removed in former operations; it has nearly all

been cast off; so much new bone has formed that this leg is considerably the larger. The patient having been etherized, elastic bands were applied and the border of the ulcer cut away so as to get at the caries; a sliver of necrosed bone was found and removed; dressed by filling cavity with white wax to keep it open and allow of free discharge.

Dr. B. remarked of the case of caries of the tibia following gunshot wounds presented on the 18th, that the hardness of the bone had heretofore prevented granulations. The medullary cavity was gouged out and the cavity formed by the operation had been frequently washed out and was now granulating very nicely. But to what extent it might fill was uncertain.

3. Injury of the elbow joint. A large boy brought to the hospital yesterday. Considerable swelling. Ether was given. The olecranon was seen to be one side of the middle. The condyles changed their position a little when pressed toward each other. There was a fracture involving the articular surface of the humerus; it extended from the head of the radius upward and inward. Treatment to-day by adhesive straps and pulley, an angular splint not being in readiness.

March 28. 1. Club-foot operation. Babe. Deformity double; the left foot operated on some time ago. To-day the division of the affected tendons of the right. No anæsthetic. The little one's cries during the moment required to complete the operation, eloquently appealed in behalf of chloroform. The wound of the operation will be left to heal, then adhesive plaster to straighten.

2. Abscess of the knee—amputation. An emaciated cachectic youth; inflammation began one month ago about the left knee; abscess burrowing in both directions to the ankle and groin followed. The burrowing has ceased, but he is not improving; it is proposed now to examine, and if necessary, condemn the leg. The pus appears fair, but is very offensive—evidently coming from bone. The head of the tibia is drawn backward

and outward. It was found that there was destruction of the synovial membrane and common destruction of cartilage to a greater or less extent. It would never get well. Every preparation having been made, the leg was elevated, and while in this position, the rubber band was wrapped around the thigh; the elastic roller was not applied on account of the condition of the knee. Amputation was performed at the lower third. Dr. B. remarked that he should tie all slightly bleeding vessels, for tissues infiltrated like these do not allow of contraction like healthy tissue.

3. Varicose veins—compression. The swellings were on the right leg about the knee; several pins were passed beneath the veins involved and wrapped as in hare-lip sutures; he is to go to bed and be let alone; if inflammation should occur, hot water.

4. Anchylosis of the knee. (April 14 and 21.) There was a good deal of soreness after the last operation but not after the first. The limb is affected now by muscular twitching and starting in his sleep. It is proposed to-day to produce extensive division of tendons behind, and to make another effort at straightening; no more pain or discomfort is apprehended than we have already had. On the completion of the first part of the operation the punctures returned venous blood quite freely. In the last part of the operation, Dr. B. applied his full strength; the angle of flexion was but very slightly increased. The trial was continued until further effort seemed futile. It is still questionable if he will have any real improvement of the leg—still the attempt has been made.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

AN ELEMENTARY TREATISE ON DISEASES OF THE SKIN. By *Henry G. Piffard, M.D.*, Professor of Dermatology in the University Medical College. New York and London: McMillan & Co. 1876.

The appearance of a work on Diseases of the Skin written by an American author, even though elementary in scope, may be considered to be an important and significant event in our literature. Perhaps more than any branch of medicine has the one relating to cutaneous pathology and therapeutics been neglected in this country until within a few years past, so that it must be confessed that ten years ago there were few, if any, men capable of writing a systematic treatise on the subject. But within ten years great strides have been made by a goodly number of physicians, chiefly among the younger men, who have studied these affections with a zeal, catholicity and success which has placed them in a favorable light among those recognized abroad as masters in this branch. Indeed, as Americans, we can now proudly claim that our studies and observations on these diseases have been recognized and appreciated in other countries, whose observers are disposed now to look for and avail themselves of the results of our scientific progress in skin diseases, rather than, as in the past, to ignore us, or treat our efforts with slight.

The results of our advance have thus far only been, as we may say, fragmentary, being in the shape of monographs, clinical studies and statistical reports, no one having until now attempted a more or less complete description of the whole subject; yet, though contributions to separate departments of cutaneous medicine, many of

them have been of much importance, and it might be well inferred that their authors were fully able to discuss as a whole, that which they only attempted at that time in part. These general ideas occur to us as we take up this excellent little work by Dr. Piffard, an observer who has been a prominent member of the little band which has caused American dermatology to take an honorable stand as a special department of medicine. To those who have read his valuable contributions in the various journals, to those again who have listened to his teaching, and again to those who have watched his painstaking unprejudiced course in the study of dermatology, both clinically and histologically, the fact will be very striking, that in the present instance, a book has been written by a man eminently fitted for the duty. His fugitive essays have shown marked powers of observation and a capacity for the proper generalization and induction from the facts of others—qualities essential to success particularly in such affections as those of the integument. Then, again, owing to the richness of our clinical resources, the author has had an ample field from which to gather his facts. With these general remarks we will now consider the work.

Proceeding to a special consideration of the various subjects of the treatise, we come, first, to the chapter on the anatomy of the skin. Here at the outset, the reader will be favorably impressed with the peculiar characters of the work, namely, conciseness and directness of statement, together with simplicity and clearness of description. We know of no work, certainly none on cutaneous diseases, thus far published, which contains so clear and terse a description of the anatomy of the skin as does the work under consideration. Complex as the structure of this membrane is, and difficult of description within reasonable limits, we find it here presented in a most admirable manner. Another feature of great importance presents itself, one which is observed throughout the entire volume, namely, that of

original research, as well as a great familiarity with and judicious employment of the results obtained by others. It is evident that the author has thoroughly familiarized himself with all the various opinions of observers upon the anatomy of the skin, and that he has come to his own conclusions with their aid as well as that of practical study. The whole chapter then can be commended as simple, thorough, and graphic in description.

The illustrations of the structure of the skin and of its appendages are ample in number and apposite in purpose, and much material benefit will be derived from a thorough mastery of the chapter. Following a short and good chapter on the physiology of the skin, we come to that on its pathology, in which the various lesions are described in a terse and simple manner and illustrated by diagrams, which, from their clearness will undoubtedly prove a great help to the student.

The chapter on symptomatology, though containing nothing striking or new, is very satisfactory, and is followed by that on diagnosis, which is, to say the least, excellent in several particulars, as will appear by a short quotation. The author says :

The importance of correct diagnosis in affections of the skin cannot be overestimated; its difficulties, however, have been ; and it is the dread of the supposed intricacies connected with this part of the subject, which deters so many students from embracing the opportunities now afforded them in most of the medical schools of this country. This same feeling, I regret, influences not a few general practitioners, and induces the belief that a useful degree of familiarity with these affections can only be obtained by a prolonged special attention to the subject. I believe that these difficulties have been greatly overrated, and that the student or practitioner who gives a fair proportionate amount of study to this department, will be likely to make fewer incorrect diagnoses than in most of those other branches, with which he feels it his duty to become familiar. Most of the elements upon which a diagnosis in dermatology is to be based, are directly under the eye, while in thoracic, abdominal and pelvic diseases, and in affections of the nervous system, these elements must be sought in deeper recesses, by the aid of physical exploration, or by a most

careful analytical study of symptoms, or both. Cutaneous diseases, then, should *prima facie* be easier of diagnosis than others, and in the great majority of instances this is the case. By diagnosis in this connection, I mean the appropriate and correct naming of the affections under consideration.

The author then details the elements of diagnosis, and the sources of information leading thereto, in a manner satisfactory to those already possessing a knowledge of skin diseases and reassuring to those commencing their studies. Besides this, he describes the various appliances auxiliary to diagnosis and their methods of use, thus constituting a noticeable section of his work, one which of all others deserves the attention it has received.

This naturally brings us to the vexed question of classification, and in the chapter devoted to its study we find a succinct description of the merits of the principal one, heretofore used, a consideration of which we cannot enter into here. Suffice it to say, that Dr. Piffard thinks there is room for still another, which, as its basis, depends on the acceptance of the doctrine of certain diatheses as a cause of skin diseases. He divides these diseases into five groups:

- I. Diathetic affections.
- II. General non-diathetic affections.
- III. Reflex affections.
- IV. Local affections.
- V. Affections of uncertain nature.

He then places the various affections under these heads, of which we cannot here give the full list, and shall merely allude to a few as being more important. By this division, syphilides of course are placed in the diathetic group, and with them are classed the various forms of lupus, which the author, following the French school, and notably Hardy, calls *scrofulides*. In this connection, we meet with a new name for what has been familiar to us in the writings of the French as the *dartrous*, herpetic or arthritic diathesis, namely, "the rheumatic diathesis," under which pathological head we find *eczema*,

psoriasis and pityriasis. Leprosy is also classed as a diathetic affection, in which class we are somewhat surprised to find ichthyosis.

We need say little here of the general non-diathetic affections other than that the group includes principally the eruptive fevers, erysipelas, glanders, etc. Acne is not considered by the author, as by some, a diathetic affection, but rather one of reflex origin, in which group, also, we find rosacea, urticaria, zoster, herpes, and some chloasmata.

Parasitic and non-parasitic affections call for little mention here. The fifth division comprises affections of uncertain nature, which, from its containing such a number of dissimilar troubles is disappointing, and while it shows a weak side of the classification proposed, its perusal carries with it the conviction that a perfect classification of skin diseases is an utter impossibility, at least in the present stage of our knowledge. There are so many points to be considered further on in the book that we refrain here from further criticism of this chapter. It shows great study and care on the part of the author and a laudable desire for simplicity; and its acceptance or rejection by the reader will largely depend upon his views as to the various diatheses claimed. Of course to a student of the German school it will appear as eminently absurd; and again, there are points upon which even those who admit diatheses will differ. Our own convictions are such, that we can not unreservedly accept Piffard's classification, still, in a practical point of view it must be confessed that the existence of such is not an absolute essential to a thorough knowledge of these affections, and is useful mostly in giving order and symmetry to the book.

Thus far we have considered what may be called the elementary section, which is comprised in fifty-seven pages, to which fact we call attention, as showing what a mass of knowledge is comprised in so short a space. Turning to the descriptive part we find the chapter

on syphilides to be excellent. We commend the skill of the author in presenting this difficult subject so tersely and clearly, and would gladly call attention to several important features. The lesions are described in a graphic manner, and their division is simple and easy of understanding. We are pleased to see the positive statement of the opinions of the author, regarding the necessity of mercury in syphilis, though we must differ from him in attributing to the iodide of potassium greater therapeutic effect than he does. As the author's views upon lupus have already been published, we refrain from comment upon them here; it must in justice to him be added, that this chapter bears the impress of long and patient study, clinically and microscopically. His observations are of great value, and the pronounced views arrived at deserve more than usual attention. Indeed we may well add here, what will be necessary otherwise to often repeat, that the microscopic studies are all carefully made, and that the author has not blindly accepted the work of others, but has, on the contrary, seen most of the appearances described himself. To such a degree is this carried, that the part of this work devoted to microscopy is almost equal to that part in Neumann's great work; but the treatise of Piffard has this great and to us pressing advantage, that clinical features are most clearly brought out, and the microscope is only introduced as an aid to the study of this all important branch. Here we think that the author has shown great judgment, and instead of having written, as did Neumann really, a hand-book of the morbid anatomy of the skin, he has written a thorough clinical treatise in small compass, and has introduced microscopic anatomy only where it will act as an aid and a supplementary study.

In short, we think that one of the most praiseworthy features of this book is the amount of really good original work in cutaneous histology and pathology which it contains, and that another advantage of it is, that this feature has not received undue precedence, to

the exclusion of clinical description. In the latter field the author has shown himself a thorough master of his subject, one who has studied minutely and carefully the metamorphoses of the cutaneous lesions. The result is evident, as the clinical descriptions are really excellent in several particulars, namely, terse in statement and graphic in detail, conveying an accurate idea of the lesions as they occur.

Next to clinical description, of course comes treatment, and here again, we have only praise to add. The directions are simple, clear and precise, and the remedies and methods of treatment are, while fully given, much more intelligibly brought out than is usual in books on skin diseases. The few remedies are stated, with directions for their use, and the impression left on the mind is that of certainty, rather than uncertainty. This remark applies to all affections, hence, the matter need not be mentioned again.

We come now to the really cardinal point of the work, namely, its advocacy of a certain diathesis as underlying and causing the various and by far greater number of skin diseases. Whatever may be one's views, no person can read this work without becoming convinced that the author has arrived at his opinions, only after patient investigation of the whole question. He considers the views of the authors who have written on the subject previously, and finally accepts as the underlying cause of the diathesis, which for certain reasons he thinks should be called rheumic rather than dartrous, arthritic or herpetic, a condition of malassimilation or suboxidation, as claimed chiefly by Bence Jones.

This certainly must be said, that the author is not content simply with assuming a diathesis, but that he endeavors to show in what it consists. Much care is shown in the management of this part of the subject, and one reads with interest the remarks of the author on the diathesis itself, and also on its general manifestations.

Eczema and psoriasis are treated of at length, and we may here add that the directions for treatment are simple and practical ; indeed, in keeping with the therapeutics of the whole book; they are in the main better, for the reasons given, than in many works which occur to us.

The limits of this review prevent us from calling attention to even a tithe of the interesting features found in the work. On every page we find food for thought and criticism, and can only now refer very briefly to a few.

The chapters on parasitic diseases are excellent, particularly the one on alopecia areata, and in their study, as in other affections, it is evident that the author has worked hard at the clinic and at the microscope. The chapters on keloid, elephantiasis, xanthoma and fibroma molluscum are, as usual, excellent, and in a short space give a clear idea of the present state of our knowledge. This same remark applies to the author's treatment of that curious affection, molluscum contagiosum, in which the latest views are given, criticised and accepted, after personal investigation.

Those interested in the question respecting the similar nature of lichen planus and lichen ruber, will read with interest the author's views, and in the description of them the student will find accurate details.

Such then, is a hasty criticism of a book of much originality ; indeed, few volumes have come under our notice in which we have found evidence of so much thorough original work as in this one by Prof. Piffard. For the student, it will prove of great benefit, and we can fully commend it, as it presents the subject of skin diseases uninvested with any obscurity. On the contrary, it presents the necessary knowledge in a plain, simple and eminently clear manner. For the practitioner, it offers the advantages of a clear, concise summary of our present knowledge, which from its directness and terseness of statement will prove a benefit when consulted. The illustrations of pathological growths are for the most

part original and excellent, while those showing the anatomy of the skin are duplicates of those from Sappey's celebrated Anatomy, and are perhaps the best ever seen.

The general appearance of the work is strikingly neat, and the type is a marvel of clearness. Finally, we must add that the work reflects great credit upon its author and also upon American dermatological literature. It shows that its author is an ardent student of his subject, and that he is both a careful observer and a cautious thinker.

INSANITY IN ITS MEDICO-LEGAL RELATIONS. By *A. C. Cowperthwait, A.M., M.D.* Philadelphia: J. M. Stoddart & Co. 1876.

This is a monograph in which the author has endeavored to discuss the pathology, classification and diagnosis of insanity, the criminal responsibility of the insane, epileptic insanity, and the treatment of the insane, with an introduction and an index all in the small compass of eighty octavo pages. His first proposition, "that he does not flatter himself that he is bringing forward any strikingly new or original ideas in regard to insanity," we indorse, and are moreover of the opinion that neither in the selections from, nor comments on, his authors has he established the claim that his book contains "the essential facts relating to the pathology and diagnosis and the legal relations of insanity, which should be familiar to every physician, and the knowledge of which is of absolute necessity to him when called upon to testify in courts of justice." We agree with him that the profession at large should pay much more attention than they do to insanity in both its medical and legal relations, not only on account of the increasing prevalence of mental diseases, but also because of the growing tendency to shield under its protection crimes of great enormity; but we doubt very much whether "the wide spread professional apathy and ignorance concerning it" will be much

relieved by his contribution to the literature of the subject.

The introduction contains ten rules for the guidance of the physician when called upon to testify as a medical expert. The sixth rule is, "he should not allow himself to be drawn out into giving any opinion on any supposed or imaginary case." If by this he means that the expert should refuse to express an opinion on a hypothetical case, then he shows himself unfamiliar with the rule of practice in many courts.

The second chapter is devoted to the pathology of insanity. Here he quotes extensively from Ray, Maudsley and Schroeder van der Kolk, and enunciates the truism that "diseased mental action is always the product of a diseased brain."

Our author adopts the classification proposed by Dr. Hammond and based upon the division of the mind into the elementary forces of perception, intellect, emotion and will, giving four elementary forms, perceptual, intellectual, emotional and volitional insanity, to which are added mania, characterized by the union of two or more of these forms, general paralysis, idiocy and dementia. We fail to see in what respect this classification is any better than the one proposed by Esquirol thirty years ago.

The fourth chapter is devoted to diagnosis. Here our author justly remarks, "there is no class of diseases so various in their manifestations as those known under the general term of insanity, and their diagnosis is often established with the utmost difficulty," and that "it is only by a practical knowledge gained by experience in the various forms and phases of insanity that this most difficult task is to be accomplished." He moreover tells us that "each individual case must be studied by itself, and nothing but experience and a thorough comprehension of the peculiarities of diseased mental action will prove unfaltering aids."

The next chapter is devoted to criminal responsibility. Upon this important question he makes the following sage remarks: "Should there be a single reason leading to the commission of crime, which is to our perception the offspring of insanity, even though to every appearance the mind is otherwise sound, yet this single delusion or whatever it may be, renders the conscience imperfect, and we are left to decide by the best methods at our command as to the extent of the perversion of the mental faculties by disease, and as to how far the apparently sane faculties sympathize with and are weakened and overcome by those faculties which we know to be diseased. This extremely difficult task is not to be accomplished by establishing any criterion of right or wrong or of legal responsibility of any nature whatever. It must in each individual case be made by the direct examination of scientific men who have studied insanity as a disease and not as a legal problem," and furthermore, "we can not delve within the insane mind and follow its incoherent workings without first becoming insane ourselves, for in this way only could we understand and appreciate its insane reasonings." The practice of common sense and equity and a due consideration of these propositions by the courts would rid the subject of the medico-legal relations of insanity of much of the difficulty that now surrounds it. Our author justly and severely criticises Dr. Hammond for the remarkable positions he has assumed in several cases of public interest.

The next chapter is devoted to epileptic insanity. In this he first briefly notes the symptomatic course of epilepsy, and then enters upon a short discussion of its legal relations. He very correctly states, "that in many instances the epileptic is never fully responsible; a temporary mental derangement being liable to occur subsequent to any mental excitement from fear, anger or any strong moral emotion, and during which a criminal act might be committed." Calling attention to the fact

that the epileptic is ever liable to destructive impulses, he justly remarks that "in cases of crime where premeditation and intelligible motives have been absent and unnecessary violence and ferocity used in execution, and especially when in connection with these circumstances there seems to be a partial or complete loss of memory of the act itself, in such cases, the fact of epilepsy being proven, none ought, for a moment, to question the individual's irresponsibility."

The seventh and last chapter is devoted to treatment, and here our author does great injustice to our American Hospitals for the Insane, and gives evidence that notwithstanding "his somewhat extended experience" he is quite unfamiliar with the general principles that govern, and the general results that have been reached in these institutions. This is particularly the case when he makes the remarkable statements that "the practical result of the plans now in operation for the treatment of the insane are in many respects prejudicial to the true interests of the unfortunate sufferers. The crowding together of large numbers of insane persons, of different forms and shades of disease, under one roof, and restraining them there as prisoners behind bolts and bars, to say nothing of the more or less constant cruelty of ignorant and inhuman keepers and attendants, cannot fail to deepen the seeds of disease rather than to bring about a natural and healthy condition of the mental functions." Such expressions cannot be too strongly deprecated, for they not only convey erroneous impressions of the principles that govern the management of our hospitals, but are well calculated to deter friends of the insane from promptly availing themselves of hospital treatment that is frequently so essential to recovery.

Our author proposes that the majority of the cases now in hospital be disposed of by boarding them "two or three together in private and responsible families,"—an arrangement that must appear to almost every one, certainly to all who have had much practical experience

in the management of the insane, as very undesirable and quite impracticable. Our author also recommends the adoption, in lieu of our hospitals, of the colony plan of treatment that has been followed at Gheel, in Belgium, for several centuries. This we cannot indorse, because, we do not admit that the plan is successful there, and if successful there, that would be no reason why it would be successful here. The European peasant and the American citizen are entirely different people, and the general character of their insanity is as different as are their other characteristics. If space permitted, we could make other objections to this chapter.

D. R. B.

THE ODORLESS WATER CLOSET. A Description of a New Method of Disposing of Sewer Gases. By *R. D. O. Smith*, Washington, D. C. 12 pp., 36 illustrations.

This pamphlet contains a description of a new method of securing perfect ventilation of water closets and soil pipes, which physicians must pronounce the most valuable addition of the age to the sanitary arrangements of modern dwellings. During the past year the medical journals from all parts of this country have contained leading articles on the various diseases arising from sewer gases. In the first week of February, 1876, two of the leading journals of the country, *The Canada Lancet* and *The Medical and Surg. Reporter*, of Philadelphia, started this subject anew. No one is so painfully aware of the prevalence of sewer poison diseases, especially typhoid fever, pneumonia, diphtheria, and infantile diseases, as cosmopolitan physicians of to-day; the object of this notice is to call the attention of just such physicians to the idea contained in this pamphlet.

From the main sewer in the street, a set of tile is laid to the dwelling, and under it, usually to the catch basin. Running perpendicularly from this dwelling sewer to the upper story of the building is the soil pipe. From the sewer main to the top of the soil pipe, there is usually interposed no barrier to the rapid ascent of the extremely

light sewer gases. In all water closets heretofore used, water-sealed traps have been relied upon to prevent the escape of sewer gases into the dwelling. But every observer knows that the closets are never free from more or less bad smell. Drs. Fergus and Gleeson, of Glasgow, have recently furnished the explanation of this ever-present smell. According to their carefully repeated experiments the conclusion was reached that sewer gases are transmitted THROUGH the water in a trap in times varying from fifteen minutes to four hours. (*The Sanitary Record*, Dec. 18, 1875, p. 429.)

These gases are never absent from the soil pipe, and their unceasing endeavor is to escape into the dwelling. The idea of the present style of water closets seems to be to force the gases down the soil pipe by dumping a certain amount of water into the trap, and squeezing them out, as it were, into the main sewer. A more absurd method of avoiding the invasion of houses by this deadly foe could not exist. Mr. Smith's pamphlet describes a new departure; instead of *suppressing* or *confining* the foul gases, a free escape is provided for them, and they are conveyed to the top of the dwelling. The escape consists of a pipe leading from the closet to an up-take flue or a chimney. The bowl or receiver of the closet is conical shaped with the apex downwards, and a simple physical law is thus utilized in concentrating the air current and precipitating it into a torrent of sewer gases rising into the ventilator from their own levity. In this way there is a constant draught *down into* the closet, thence through the ventilating shaft to the roof, instead of *up out of* the closet into the dwelling. The advantages of this simple application of physics to the sanitary condition of houses are simply incalculable. This closet can be applied to any place where needed, as residences, hotels, schools, hospitals, prisons, etc. The principle involved in this new idea can be applied to urinals, waste pipes, wash bowls, bath and wash tubs, man holes, sinks and gullies. A movable, odorless commode, connectable

with a chimney by means of a flexible tube or a tin tube, can be used in every sick room.

The writer of this brief notice has seen the odorless closet, urinal and commode, and can testify to the absolute absence of any fæcal or urinal odor where they are used. The two former were seen in a place where every traveler can safely say he is usually half strangled by excrementitious stinks before he has half completed his orisons to Cloacinus, viz., in a passenger coach closet; there the air was actually far purer than in the body of the car. A personal inspection of a tenement building in Chicago supplied with this closet, known to the writer, will convince any one of the complete lack of sewer odor about the whole structure.

THE PATHOLOGY AND TREATMENT OF CHILDBED. By *Dr. F. Winkel*; formerly Professor and Director of the Gynecological Clinic of the University of Rostock. Translated from the German, by *Jas. R. Chadwick, M.D.*, Clinical Lecturer on Diseases of Women, Harvard University. 484 pp. Philadelphia: H. C. Lea. 1876. \$4.00.

Until within three years, no book has appeared in our language devoted exclusively to the diseases of the puerperal state. During this time, however, the ground has been well occupied by the work of our own countryman, Barker. In view of the fact that the mass of the profession are general practitioners, who are greatly interested in the disorders of childbed, it is not a matter of surprise that the usefulness of another book should be recognized. In the work before us, which we have anticipated with some pleasure, since its announcement more than a year since, there is but little which supersedes the book already alluded to in the field, but much which is confirmatory of, and supplementary to, the teachings of the latter. We learn from the author's preface to the first edition, that the book was first given to the world in 1866; and we might have sooner expected its appearance in English, in this day of numerous translations, for the observations of a man of extended opportunities,

like the author's, are always valuable to a great number. In the present instance, a careful study of the book can not fail of being profitable; at the same time, it seems to us, it will do much to elucidate and harmonize many theories of puerperal diseases which are, unfortunately, now vague and discordant.

We have been much interested in the subject matter of the entire book. Besides other topics, we noted especially the author's views of childbed in general: "That childbed exhibits no special conditions" normally, and "that all attempts to demonstrate such conditions must prove futile." This is especially interesting in view of the fact that the majority of English observers have always laid so much stress upon the so-called peculiar condition of a woman in childbed; a condition which favors the occurrence of puerperal disorders in general, and so-called puerperal fever in particular.

Venesection in puerperal diseases has received the attention which the importance of the subject requires. The blood of the pregnant and parturient woman is deficient in the red corpuscular elements, at the same time there is an excess in water, fibrin and white corpuscles. The effect of a general bleeding is to induce just such a condition of the blood, or to aggravate that condition if it already exists. Moreover, venesection is of little efficacy in fever, since it lowers the temperature but a degree or a degree and a half. On the whole, the result of venesection is a speedier loss of strength, and a greater mortality. The effects of local abstractions of blood are often efficient, on the other hand. But in peritoneal inflammation even the latter are best superseded by bags of ice, which should fit the belly like a hood, and which he has never seen freeze the abdominal walls, "even after a week's uninterrupted use" of them.

On page 194, the author says of the use of ice in the treatment of peritoneal inflammation: "As to the use of ice-bags, which I have often employed with women in childbed for more than fourteen days consecutively, and

always resort to immediately for all severe pain in the abdomen, when ice is easy to be had, I can only corroborate the statements of Béhier ; I have never seen unfortunate results in my cases, such as diminution of the lochia and lacteal secretion, or affections of the skin, especially gangrene."

The author's consideration of the subject of inversion of the uterus is, at best, incomplete ; no mention being made of Thomas's operation. In this connection it is noticeable that, in the extended bibliography of the author, there is by no means as frequent reference to American literature as in the book of his countryman, Shroeder, who has not overlooked the fact that American gynecologists are really advanced in the science.

We were especially interested in the account of the etiology of so-called puerperal fever, which we believe the most intelligent we have ever read. We infer that the author does not accept a specific disease which can be called puerperal. The affections which may be known as puerperal fever are numerous ; they are usually phlegmasias with the most varied pathology. For clearness, "we must first draw a clear distinction between the first cases of an epidemic and the so-called puerperal fever epidemics." "The following have been demonstrated to comprise some of the causes of the affection : (A) In the first place *wounds* and *contusions* of the external and internal genital organs may be succeeded by such inflammations. * * * (B) The *decomposition* of retained portions of the membranes and placenta within the uterus, may also unquestionably evoke all the forms of septic puerperal affections that have been mentioned. * * * (C) Primary inflammations of the vagina and uterus, or gonorrhœa of the genital organs, may become exacerbated in lying-in women to such an extent as to amount to an acute parenchymatous inflammation. * * (D) Finally, it is an established fact, that the most serious puerperal disease may be caused in private practice as well as in hospitals, by the infection of wounded

portions of the genital organs with cadaveric matter, or with the secretions of sloughing, or phagedenic wounds." Concerning the beginning of epidemics, the author says: "I have come to the conclusion that puerperal fever originates as an epidemic in lying-in establishments, by means of a direct transfer of the infectious (purulent, putrid or diphtheritic) matter from one puerperal woman to another." Especial attention is called to the fact that the epidemics of puerperal fever, outside of maternities, have been almost exclusively confined to the practice of one man or one midwife.

It may be of interest to the student who desires to keep abreast the fashions in pathology, to know that the disease formerly known as putrescentia uteri, and latterly, metrolymphangitis, is now called diphtheritic inflammation of the uterus and vagina, with thrombosis of the lymphatics and diffuse phlegmon. Alas! the mortality remains the same with all the improvements in nomenclature.

The author does not accept a "milk fever," but refers the elevated temperature which sometimes coincides with the flow of milk, to traumatism or to some phlegmasia.

A feature which enhances the value of the book, is the record of numerous cases interspersed throughout to illustrate the text. In some instances, we fail to see how the conclusions of the writer are warranted by the cases. Thus, on page 328, *et seq.*, a case is reported of death from so-called puerperal fever, metritis phlegmonodes, parametritis, peritonitis, in private practice. Of it he says: "*This case is consequently a proof that in private practice and remote from lying-in establishments, without infection and without miasma, the most severe forms of the septic diseases may occur sporadically in childbed.*" From a careful reading of the record one could hardly conclude that sepsis existed. Moreover, the author himself admits—"there was absolutely no reason for supposing that there was any infection or contagion; much less could a miasmatic origin be suspected. It is, on the

whole, most probable, from the early escape of the waters, the long irritation of the cervix, the extraordinary effort made by the uterus to drive the large child into the contracted pelvis, that a metritis with parametritis was set up, and that this caused the peritonitis." On page 201, the case entitled, phlegmonous metritis, paranephritis, peritonitis, pleuritis, pericarditis, continued fever, would, we think, be accepted as an instance of puerperal septicæmia.

An almost universal omission in the records of the cases is the fact of the married or unmarried state of the patient. In most instances perhaps this is not of great importance; but in record No. 47, the omission is a serious one. It may be briefly stated that the writer has reported three distinct forms of mania to which the pregnant and parturient woman is subject: (A) symptomatic mania, accompanying a phlegmasia; (B) mania persecutoria puerperalis; (C) idiopathic puerperal mania. The case alluded to is of the second variety. The subject was 37 years old, of healthy family. When a mere child she received a blow upon the forehead from a flail, not severe enough to destroy consciousness. Her menses appeared at the age of twenty-one; at this time she had a single epileptic attack but never subsequently. She feared her father, who was unkind to her. Becoming pregnant she applied to the Lying-in to make provision for her confinement. During pregnancy her health was good, though at times she was morose. When in labor, she attempted to strangle herself with a towel. The fœtus, dead born, was extracted with the forceps. Post partum, she had puerperal ulcers and endometritis, which grew better under treatment. Gradually, mental derangement became developed, *high fever*, and she soon became the subject of hallucination. Subsequently, abusive and blasphemous language at night. The subject was soon lost sight of, being handed over to the police authorities.

One naturally asks, was this the victim of seduction,

and the mother of an illegitimate child? Could her moroseness and attempt at suicide be explained by mortification? In other words, was this not, after all, an instance of true puerperal mania. Writers, especially Barker, have called attention to the fact that seduced and shamed women are the especial subjects of mania puerperalis. Did this woman ultimately recover? The writer places great stress upon the fact of the blow upon the forehead, received many years before, and says that a recovery could not be expected under the circumstances by which the subject was predisposed to brain trouble. There is absolutely no evidence of such predisposition. It is to be regretted that a case so incomplete in detail should be cited in illustration.

In the therapeusis of puerperal mania, it is a little remarkable that the author does not even mention the use of hydrate of chloral.

The translator has done his work so well, that, except for the proper names, we should be but seldom reminded that we were not reading an English book. The centigrade temperature markings have been converted into the Fahrenheit scale. The decimal system of weights and measures has been retained.

Once the meaning of the text was not clear; on page 102, the first two lines of the last paragraph, under the head of anteflexion and anteversion: — “The vaginal portion is generally pushed backwards, and points towards the sacrum *when the os uteri is inclined forwards.*”

The typographical errors are fewer than is usual in books of this size. On page 224 “mycenium” evidently should be written mycelium. In the last record of the case on page 276, “P. M.” should read A. M.

The clear type and general mechanical execution of the book are a source of real pleasure to the reader.

E. W. S.

DETERMINATION OF THE REFRACTION OF THE EYE BY MEANS OF THE OPHTHALMOSCOPE. By *Edward G. Loring, M.D.*, New York. From advance sheets On the Ophthalmoscope. Wm. Wood & Co., New York. 1876. Price, 50 cts.

The perusal of this pamphlet of sixty pages will be a pleasant and useful study for every physician interested in ophthalmic practice. Judging from these advance sheets we believe the whole work promises to be a very valuable addition to American medical literature.

BOOKS RECEIVED.

REPORT of the State Board of Health of Michigan for 1875.

THE SURGERY, SURGICAL PATHOLOGY AND SURGICAL ANATOMY OF THE FEMALE PELVIC ORGANS, in a series of colored plates taken from nature, with Commentaries, Notes and Cases. By *Henry Savage, M.D.* London. Third edition. Philadelphia: Lindsay & Blakiston. 1876.

TRANSACTIONS of the New York State Eclectic Medical Society for 1875.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By *T. Henry Green, M.D., etc.* Second American edition.

DE LA VALEUR DE L'HYSTEROTOMIE DANS LE TRAITEMENT DES TUMEURS DE L'UTERUS. Par Le *Dr. S. Pozzi.* Paris.

PAMPHLETS RECEIVED.

TRANSACTIONS of the State Medical Society of Kansas, 1875-6.

Nos. 2 and 3, of vol. II, of "AMERICAN CLINICAL LECTURES." On Certain Forms of Morbid Nervous Sensibility. By *J. S. Jewell, M.D., etc.*

THE TREATMENT OF MILD CASES OF MELANCHOLIA AT HOME. By *E. C. Seguin, M.D., etc.*

WARM AND HOT WATER IN SURGERY. A short Historical Sketch, with the present most approved Methods of Application, with Cases. By *Frederick E. Hyde, M.D.*

ON SOME SPECIAL AFFECTIONS OF THE OESOPHAGUS. By *Frederick N. Godon, A.B., M.D.*

HYDRODIPSIA AND THE WATER SUPPLY OF LIVING BODIES. By *Z. Collins McElroy, M.D.*

Translations.

THE ACTION OF OBSTETRICAL FORCEPS.*

(From the French of Prof. E. Hubert.)

By FRED. J. HUSE, M.D.

Few surgical instruments are called into requisition so frequently as the forceps ; few are so imperfectly understood in regard to method of action. The *iron hands* of J. Palfyn have been subjected to innumerable modifications in their mode of union, in length and form of handle, in amount of concavity, and shape of tip. Every obstetrician has been eager to effect an alteration by some addition or change, but the greater proportion of these modifications have been made at hazard, and more frequently as experiments than as the expressions of an established theory. "When one fails to understand the use of old forceps," said Velpeau, "he invents new." As the result, though progress may be trifling, instrument makers thrive.

In order to throw light upon the manner in which forceps may be brought to a condition of perfection, it is pre-eminently essential that the effort should be made with a full understanding of what may reasonably be expected of them. When this point has been definitely determined, science will have taken a long step in advance ; the purpose once indicated, its mode of fulfillment is easily established, and the completion of the instrument may be left to the artisan. But the disagreement which exists among the schools shows that this step has never been taken. Contrary purposes are still proposed, and what some consider progress seems to others recoil. This results from the notions, that to produce general satisfaction a single instrument ought to fulfill,

* *Archives de Tocologie des Maladies des Femmes et des Enfants Nouveaux-nés.* March, 1876.

equally happily, indications which are diametrically opposed; and at one time grasp the head without compressing it, at another compress it, in order to reduce it, in the act of grasping. These conditions can hardly be combined without much difficulty, and we do not propose to tarry in such a search, preferring rather to adopt the use of two forceps of different type, a *tractive* forceps and a *compressive* forceps, each adapted to conditions and requirements entirely distinct.

In 1860, my father carefully investigated the method of using forceps as a means of traction.* For myself, I propose to sum up his teachings in a few words, and then, placing myself upon another stand-point, examine the instrument as a means of reduction.

I.

The following propositions were demonstrated by my father by calculus:

1st. Traction made in the direction of the axis of the canal are entirely utilized.

2d. Traction perpendicular to this axis are entirely expended in producing compression.

3d. Oblique traction are resolved into extractive, useful force, and compressive or injurious force. The useful force is diminished and the injurious force increased in proportion as the direction of traction is removed from the centre of the head; as the head deviates from the pelvic axis; and according as the forceps are grasped further from the joint.

Though excellent in the inferior strait, where the traction can be directly opposed to the resistance, the forceps become of less value at the superior strait, because their action is no longer *in* the direction of the axis, being, at most, only *parallel* to it. As a boat drawn by a tow-line is immediately dragged against the bank unless the rudder, so turned as to produce a strong resistance on the part of the water, serves to maintain its axis in the axis of the canal; so in the pelvis the anterior wall may be compared to the rudder, in presenting that resistance which maintains the head in the central line of the resistance of the pelvis, despite the defect of traction.

Now, as we have already indicated, this resistance may be resolved into compression and the neutralization of force. In order to avoid bruising of tissue and loss of

* Memoires de l'Académie Royale de Med. de Belgique, tome IV, 1860.

force, my father caused forceps to be made in the form of the letter S, thus rendering possible the most exact prolongation of the direction of strain in the axis of the superior strait. A more simple means of accomplishing the same result consists in perforating the handles of ordinary forceps with two holes near the joint, and adjusting an iron stock to the instrument by means of a couple of fids.

Still another method of giving the most serviceable direction to tractions consists in rendering the handles of the instrument stable with one hand and applying the force at the joint; thus it is changed into a powerful lever, and its blades are caused to describe a curve which, like the axis of the strait, has a downward and backward direction. There is, however, this single objection to this mode of use, that if the head has not been seized with care, the blades may slip off suddenly and wound the posterior wall of the neck, vagina, or perineum.

II.

It is the general opinion of the present day, that the classical forceps is a poor instrument of reduction, and every-day practice demonstrates that it can hardly reduce the head many millimetres without greatly compromising the existence of the fœtus. An infant, which, in order to be born, must submit to a diminution of a centimetre in one of its cranial diameters, can readily be brought forth alive by the exertions of the organism; but it is almost surely lost if subjected to the forceps.

Art is, therefore, still far behind nature, and it is interesting to examine how it is that such different results are brought to pass.

Nature expels the head by leaving it at full liberty to turn toward the largest amount of space; the compression is slow, graduated, and the reduction is never carried beyond the point strictly necessary; the head is only compressed between two points, and while one diameter yields under the strain, all the others can easily expand. In other words, the *cranium is changed in form, without notable change in capacity.*

The Flemish lever,* in skillful hands, may very nearly imitate the natural mechanism, but it is not so with ordinary forceps. The head grasped in the direction of its length by the ellipse of the instrument, compressed

* Of the third class.

transversely by the blades and backward by the bones of the pelvis, can scarcely expand except in its vertical diameter; but this expansion does not sufficiently counteract a reduction, which is effected in all other directions by crushing. Alteration of form on one side, alteration of capacity on the other, such difference in the mode of action is sufficient to account for the difference in result.

From another point of view, the cephalic curvature, which allows the instrument to adapt itself to the convexity of the cranium, prevents compression at the desired locality. After a head has been laboriously extracted, the principal marks impressed upon the integument are found upon the face, where the effect has been exerted upon an irreducible diameter, while, at the same time, the parietal eminences have almost entirely escaped the action of the blades.

It is also essential to bear in mind that the obstacle at the superior strait nearly always consists in a shortening of the antero-posterior diameter, and that it is impossible to place the instrument there.

No doubt the head diminishes in volume under the force of energetic traction, just as iron is drawn out in the rolling mill, but at the expense of the resistance of the bony circle, across which it is dragged, and in direct opposition to the defective pressure of the instrument; the proof of this being that reduction is much more easily accomplished if, instead of binding the cranium with the steel hoops of the forceps, traction is made by means of an elevator fastened in the vertex; or, indeed, as Simpson has proposed, by means of a disk of leather closely adapted to the head by means of an air-pump.

It would, therefore, be advisable to renounce the forceps as an instrument of reduction, unless such modifications can be effected as shall remove, at least in part, these glaring defects. The process of determining rational modifications is very complex, since the following problems present themselves: How much reduction of the head is compatible with the preservation of the infant's life? What force can be exerted upon the mother and infant without too much risk? What form and what size shall be given to the instrument, in order to render it the most efficient and the least destructive?

Form of instrument. The best forceps is evidently that which in action will most closely imitate nature and diminish the volume of the head in the most harmless man-

ner. "However defective may be the contrivance of a forceps," M. Chassagny has said, "it will never be absolutely bad if the blades are long; but with short blades, the most skillful man will only be able to construct a forceps which will be detestable in every respect." He then demonstrated, by calculus and by most ingenious experiments, that the longer the blades of a forceps are, from the joint to the tips, the better they adapt themselves to the convexity of the head; the less prominent their cephalic curvature, the less oblique their compression, and consequently the less they are obliged to compress the head in order to retain it. On the contrary, the more the blades are shortened, the more they must separate in order to include the head; the more downward must be their curvature, in order to fit upon it; the more firmly must they be closed, to prevent slipping off, and the more they affect by their bite. Moreover, when held between parallel blades, the head can be more easily elongated than between crossing blades.

The genius of Palfyn, therefore, in 1721, gave a form to the handles of forceps from which it was unwise to deviate, and which reason now restores. To cross the blades was to shorten them, and this was to spoil them.

Reductibility of the fetal head. When a head is compressed with strong crossed forceps, it may be seen to be slightly flattened and elongated. The bones overlap and the scalp is wrinkled. If pressure is increased, the elongation becomes less and less apparent, and, strange to say, the overlapping disappears and the skin is put on the stretch. At first the brain, being thus forcibly compressed, resists in the manner of a fluid, and reacts in all directions. Under further increase of pressure, either the forceps bend, or the bones are broken, or the brain, reduced to pulp, escapes through the orbits, nares, sutures, and the occipital foramen. In this manner the head is rendered sufficiently ductile to allow of its passing through an opening of five centimetres, but evidently this is not the desired result; a reduction is desired which is less brutal, and which is compatible with the life of the infant.

Beaudelocque made observations which are still famous upon nine fetal heads. Seized in selected forceps, these were reduced in different degrees, but always more than a centimetre, and the diameter perpendicular to the diameter of seizure was with difficulty elongated a few millimetres. Pétrequin, experimenting in the same manner,

arrived at quite different results, and ascertained a constant elongation proportional to the cranial diameter opposed to the diameter under compression.

The source of these differences, according to M. Chassagny, may invariably be found in the form and temper of the forceps employed. Had they been in agreement, however, these observations would still have failed to possess any considerable value in our estimation, for they were made in the laboratory, and under conditions which do not present themselves in nature. In order to become instructive and convincing, they should be commenced afresh within artificial pelves, which may register the compression of force applied regularly and uniformly, and by means of forceps of various sizes, shapes and tempers. Such were the experiments of M. Chassagny, and he arrived at the following results :

1. The same head having been seized by different forceps in the direction of its biparietal diameter, the reduction of this diameter was zero with the forceps of M. Pajot, five millimetres with the forceps of Hatin, and one millimetre with the forceps of M. Chassagny.

2. To obtain these varied degrees of reduction, the pressure of crossed blades was quadruple that which was used upon the forceps of M. Chassagny.

3. When the head was seized from a frontal eminence to the opposite occipital eminence, the greatest separation of sinus was 101 millimetres with the forceps of M. Chassagny, 115 millimetres with that of Hatin, and 130 millimetres with that of M. Pajot.

4. To draw the same head through the same strait, when it required a force of 18 kilogrammes with the forceps of M. Chassagny, it required 25 with the forceps of Hatin, and 30 with that of M. Pajot.

5. In artificial pelves with movable walls, where the forceps of M. Chassagny did not produce any separation, that of Hatin caused one of five millimetres, and that of M. Pajot one of eight millimetres.

6. During traction the lips of blades which were not crossed did not approach each other, while those of the forceps of Hatin approached six, and those of M. Pajot seven, millimetres.

7. Not only was the diameter of seizure reduced more, the force exerted and the compression sustained by the pelvis less, under the use of the forceps of M. Chassagny than with the two others, but also the brain of the infant would have sustained much less

injury, since an artificial head* filled with water, seized in turn by each of the three forceps, and drawn with equal force through the same pelvis, lost, during extraction, seven grammes of fluid with the forceps of M. Chassagny, thirteen with that of M. Hatin, and twenty with that of M. Pajot.

It is generally conceded that the vault of the cranium may yield, under certain conditions, and become level with the base; so, although a reduction of about† fifteen millimetres in the biparietal diameter may be dangerous, it is not, therefore necessarily fatal, and it is conceivable that an infant could be born alive from a pelvis of seventy-five millimetres. Yet we are not of the opinion that because an infant could be *expelled* it could likewise be *extracted* alive, for it is a matter of observation that the forceps can hardly reduce the cranium, even a few millimetres, without grave hazard to the existence of the foetus, while nature may accomplish much greater reduction with less danger. We have, indeed, seen several women with pelvic measurement of seventy-five millimetres expel living children, while in previous labors the forceps had invariably brought forth their children still-born. To attempt to pull an infant at term through such a constriction was to expose it to almost certain death.

Perhaps, however, it may be allowable to hope that sustained mechanical traction, being less energetic and less brutal than manual labor, may yield more favorable results, and as it presents less gravity than all the other resources of art, the obstetrician is authorized in using it whenever insufficiency of uterine force is manifest.

* This head was of vulcanized rubber, solid in the portions corresponding to the base of the skull and the face, having to correspond with the cranial cavity; a vacant space was left, which could be filled with water. An opening allowed the water to escape during compression, and the quantity of water escaping afforded an exact measure of the diminution of capacity.

† We have used the expression *about* fifteen millimetres, because the biparietal diameter is never directly engaged in the strait, and it is in reality an oblique line near this diameter, but a trifle shorter.

(To be continued.)

Summary of Progress in the Medical Sciences.

I. SURGERY.

1. *Uniting Tendons by Suture.* FILLAUZ. (*The Medical and Surgical Reporter*, March 18, 1876.)

A laborer, fifty-four years old, sustained a lacerated wound on the dorsal aspect of the right hand. The extensor tendons of the fourth and fifth fingers were torn through. The wound healed in due time, but these fingers could not be extended actively. Two months after the injury, Fillauz, employing local anæsthesia, easily succeeded in finding the peripheral tendinous stumps, but the proximal stumps had retracted under the dorso-carpal ligament. The operator, therefore, dissected the tendon of the middle finger in which he made a longitudinal incision, through which the freshened stumps of the tendons were passed and fixed by wire suture.

The wounds having healed, the patient could extend all his fingers, though there was firm adhesion between the skin and the cicatrix of the tendon.

Reference is made to a second successful case.

2. *Treatment of Carbuncular Disease in Man by the Subcutaneous Injection of Anti-Virulent Fluids.* Dr. L. H. RAIMBERT. Translation by Dr. WM. C. DABNEY, M.D. (*Virginia Med. Monthly*, March 1, 1876.)

Raimbert tried the subcutaneous injection of carbolic acid, one part to fifty, in two cases of carbuncle, after other means had failed, and in one case the hypodermic injection of iodine, one part to five hundred, with favorable results. In the first case he was consulted on account of a malignant œdema of the face, by a farmer who, a week before, had lost a number of sheep with inflammation of the spleen. The disease first appeared as a number of small pustules behind the right ear, followed by a considerable infiltration of the cheeks, lips and structures beneath the jaw. On the third day, the white-hot iron was applied around the diseased part, a distance from it of from four to six centimetres, and the surface of the scabs was sprinkled with corrosive sublimate. On the following day, as soon as the swelling had diminished, Raimbert injected ten or twelve syringefuls of a two per cent. solution of carbolic acid into the whole extent of the cheek. The result was astonishing. The injections were repeated on the following day. The healing progressed uninterruptedly.

The second case was that of a farmer who, in opening a vein in a cow suffering from gangrenous inflammation of the spleen, had inflicted a slight abrasion of the skin of the left ring finger. Three days afterwards, he noticed at the point of abrasion a small papilla depressed in the centre, which the physician consulted declared was malignant pustule, and applied caustic potash. On the following day, there was considerable increase in extent and severity, and the swelling had been decidedly augmented by the use of the caustic. The swelling rapidly extended to the whole arm, which became so hard and tense that it was necessary to make incisions in both arm and forearm to lessen the tension.

On the fourth day, Raimbert saw the patient, and, mindful of the result in his former case, he injected nearly forty syringefuls of carbolic acid solution (two per cent.) in the whole length of the arm. The result was "brilliant."

The following day the arm was less hard; and the injections were repeated on this day, morning and evening.

From that time the improvement progressed slowly and steadily, so that at the end of two months after, the gangrenous part of the ring finger, a part of the back of the hand, and some parts which had become gangrenous at the seat of the puncture, had been cast off. All the wounds were found to be well healed.

In a third case, where the wife of a tradesman had been handling hides, the affection began as a small knob on the right cheek, the connective tissue around which had become infiltrated for a considerable distance, and from which a red band of lymph vessels ran directly to an enlarged gland behind the jaw. After removing the skin at the centre, the wound thus made was treated with corrosive sublimate.

The swelling had greatly increased on the following day, and was progressing towards the neck and eyelids; that evening, $4\frac{1}{2}$ syringefuls of a solution of iodine, one part to 500, were injected under the skin of the cheek and lower jaw. On the following day no change having occurred in the swelling, the injection was repeated, and on the next day there was a manifest diminution in the size of the part. The injection was again repeated, with marked and progressive improvement.

3. *Epithelioma of the Tongue and its Relation to Psoriasis of this Organ.*

Communication of M. TRÉLAT to the Surgical Society. (*La Tribune Médicale*, December, 1875.) Translation by WM. C. DABNEY, M.D. (*Virginia Med. Monthly*, March, 1876.)

M. Trélat presented three cases illustrating a close relation between psoriasis of the tongue and subsequent lingual epithelioma.

In the first case the cancerous affection could not be arrested by surgical means. The patient rapidly succumbed to the well known complications of malignant affections of the organ in question. Very slight lingual psoriasis preceded the outbreak of cancer. In the second and third cases the relation of the two affections is as close as in the first.

4. *New Rhinoplastic Operation.* (St. Louis Clinical Record, March, 1876.)

Upon the authority of *L'Union Méd. du Canada*, the *Gazette Médicale de Paris* mentions a case under the care of M. Hardie where the skin of a finger was borrowed to furnish the soft parts for a new nose; and the phalangeal bone was utilized to form the solid portion. The patient was a girl aged 16 years. The alæ and a portion of the septum nasi remained. The improved nose made a good feature.

5. *Introductory at the Pennsylvania Hospital on Bonwill's Method of Inducing Anaesthesia.* ADDINELL HEWSON, M.D. (*Philadelphia Med. Times*, March 4, 1876.)

After a casual reference to the value of chloroform and ether in robbing surgery of the greatest of its terrors, the lecturer remarked that we are in want of measures to diminish the sensitiveness of a part, so that patients can be handled or examined with as much force as may be necessary to detect all the phenomena in their cases. In the most serious cases for manipulative examinations we have not heretofore hesitated to use ether and chloroform, but in many of them we should feel that we were in want of some means to be used without inconvenience or annoyance. This desideratum, Dr. Hewson believes is found in Dr. M. G. A. Bonwill's method of diminishing or allaying sensibility by rapid respirations. The confusion of sight and bewilderment of mind induced by a rapid and deep respiration after violent running, or blowing hard to ignite a fire, Dr. Bonwill associated with numbness of sentient nerves. Pursuing the subject, he has brought it to practical use in his profession, that of dentistry, in which he uses it constantly to diminish the sensitiveness of dentine, and even to produce such insensibility as to allow the extraction of a molar tooth without pain.

Dr. H. has employed the method in stitching wounds, in handling over-sensitive parts, in probings, and the like. The lecturer failed before the class in two cases in which he attempted to use Bonwill's method. The patients were both boys; neither would continue inspirations anything like long enough, three minutes being required. The want of success was due to great emotional excitement and possibly from the dread of the introduction of the sounding-board to be used in conjunction with the probe in the search for dead bone. Dr. Bradford, the reporter of the lecture, then volunteered to try the process before the class. It was his first attempt, and was made sitting erect, with his right hand resting upon the table. Breathing rapidly for about three minutes, was attended first with a tingling sensation of the surface, especially of the fingers, and a feeling as though the surface was swelling. Then there followed a dizziness or confusion in the head, with consciousness well preserved, but with a feeling of inability to resist or act in an independent way. He remembered well, being frequently asked by the doctor if he was hurting him, but had no recollection afterwards of the pin sticking him, much less of its having been firmly imbedded in his flesh, as he found it when he had ceased the rapid respirations and the anæsthetic effect had passed off.

6. *Amputation in a Diabetic Patient; Sudden Death.* VERNEUIL. (*Le Progrès Méd.* No. 22.)

A railroad employé, 52 years old, had his left leg crushed by a car. He was of robust and vigorous frame, in good condition for operative interference, and the indications for removal of the limb were clear.

The operation was accompanied by a rather abundant hæmorrhage, but the next night was passed comfortably and no traumatic fever followed.

The patient enjoyed perfect quiet until 10 o'clock of the day after, when a singular and rapid change occurred in his condition. He was found in the dorsal decubitus, with head thrown back, the eyes half closed, the features drawn, brown sordes about the teeth, a peculiar fætor of the breath, a yellowish hue of the skin contrasting singularly with the injection of the capillaries, cold and cyanosed extremities, oppression, subdelirium, incoherency, and extreme, incessant agitation.

It was then discovered that he had been long affected with diabetes mellitus; his urine was found to contain 35 per cent. of sugar; specific gravity, 1030. The temperature was soon, 37° C.; pulse, 140; respirations, 32. Death ensued during the night.

Post-mortem, the stump was found in an excellent condition. The cortical substance of the kidneys was double the normal volume, with prolongations into the pelves, separating the medullary substance into islets. There was some thickening of the capsules, with interspersed patches of a white color. Cretaceous tubercles were seen at the pulmonary apices, the lower lobes of the lungs being red, œdematous and friable. The liver was enlarged, reddish and granular, as in cirrhosis, but not indurated. The spleen was softened and pulpy under the fingers. Under the microscope, a granulo-fatty degeneration was discovered in the liver, kidneys and testicles. (The latter fact explains the impotence and aspermatism of diabetes.)

Verneuil justly concludes that operations should not be performed upon persons affected with organic visceral disease, except in cases where the lesions demanding operative interference are incurable by natural processes.

II. PRACTICAL MEDICINE.

The Hydrotherapeusis of Croup. WINTERNITZ. (*Aester. Jahrb. für Paediatrik; Giom. della R. Accad. di Medic.* Jan. 30, 1876.)

The author attributes great importance to the paretic condition of the larynx as a cause of the distressing dyspnœa, and believes that to this, treatment should be specially directed.

Reflex excitation of the respiratory centre is therefore to be accomplished by mechanical or other methods. Cold affusion of water of various temperatures is to be practiced over the integument, and, if this is

not sufficient, the author advises the use of the occipital douche. Four grave cases treated by this method are reported in full. W. invariably noticed, when employing the cold aspersion, that the force of the patient, well nigh spent, was reanimated, the cough was relieved, and the pulse and respiration became more tranquil. The remedy was specially valuable in preventing death by suffocation, which was the more frequent issue when the natural resolution of the disease was awaited.

2. *Pneumatic Treatment of Pulmonary Disease.* SCHNITZLER. (*Rev. des Sci. Méd.* Jan. 15, 1876.)

The treatment by compressed air considered to be indicated in the following pathological conditions: 1. General feebleness of the respiratory organs. 2. Chronic catarrh of the bronchi. 3. Pulmonary catarrh and the first stage of phthisis. 4. Emphysema, where this treatment is generally very efficacious. 5. In certain cases of nervous asthma, that is, in cases where a minute physical examination cannot detect any morbid changes in the heart or lungs. 6. Thus far S. has made few experiments in treating by this method affections of the larynx, because the dyspnoea is not the predominant symptom, as in a small number of disorders of this organ. There are, however, examples where the inspiration of compressed air has been of service in laryngeal disease.

The pneumatic method can be employed also in cases of stenosis of the larynx which are not extreme.

In diseases of the heart, the author recommends inspiration of compressed air and expiration in rarefied air, but the results thus far are not highly gratifying, and, at the best, there was but a transient amelioration of symptoms. Occasionally signs of cerebral congestion occurred (dizziness, ringing in the ears, cephalalgia, etc.,) which necessitates immediate abandonment of the treatment.

3. *Sedative Solution in Whooping-Cough.* GUÉNEAU DE MASSY. (*Jour. de Med. et de Chir. Pratiques.*)

Musk, three grains; potassic bromide, half a drachm to two scruples; cherry laurel water, one drachm and a half; syrup of ether, half an ounce; syrup of belladonna and syrup of codeine, of each, one ounce; syrup of orange flower, one ounce and a half. To a child eight to ten years of age, give a teaspoonful between meals, morning, evening and night. During the day it is not to be used, lest the narcotics recommended disturb digestion. The musk, if insupportable, may be omitted.

4. *Sleep of the Aged.* POPELAUER. (*Revue des Sciences Méd.* Jan. 15, 1876.)

Three forms: 1. *Continued sleep*, from which they must be aroused in order to eat, and to which they return immediately after. Appetite unchanged, obtuseness of intellect, loss of memory, prolonged sojourn in bed, gangrenous degeneration of skin. 2. *Diurnal sleep*, with agitation

when night falls, inability to find the bed which has just been abandoned, getting into another bed than their own. This is the sleep at the onset of senile dementia. 3. *Agrypnia* with complete insomnia—the precursor of a real affection of the mind. This condition is to be treated by opium in large doses, which, as generally believed now, rarely induces dyspepsia, cephalic congestion or collapse.

5. *Milk Diet in the Albuminuria of Pregnancy.* TARNIER. (*Jour. de Med. et de Chir. Pratiques.*)

For several years the author has submitted pregnant and albuminuric women to a milk diet, and has, as invariably, noticed the albuminuria disappear and eclampsia never occur. The cure of the albuminuria of pregnancy thus made possible, leads him to hope that in a large proportion of cases eclampsia may be prevented by the same measures. In point of fact, eclampsia almost never occurs except in albuminuric women; and often suddenly appears before the onset of labor, the latter following convulsive attacks, but so soon after that the physician recognizes at the same time the symptoms of eclampsia and the signs of labor. Although rare cases of eclampsia without albuminuria occur, it might be said that if we were in position to cure the albuminuria of pregnancy we should at the same time possess the means of preventing eclampsia.

In order to do this, the albuminuria must be attacked in time. Unfortunately the latter is insidious in its invasion and is sometimes manifested by no peculiar symptoms. T., accordingly, frequently examines the urine of all pregnant women in his charge, and as soon as albuminuria declares itself, he puts them on a milk diet as follows: 1st day, one litre of milk, two portions of food; 2nd day, two litres of milk, one portion of food; 3rd day, three litres of milk and a half portion of food; 4th and following days, four litres of milk, or milk *ad libitum*, without other solid or liquid aliment.

In grave cases, if some of the prodromata of epilepsy have occurred, this gradation is not observed, and the patients are placed at once upon three or four litres of milk daily.

The influence of the milk diet is speedily manifested, and, in eight or fifteen days, after the commencement of treatment, the albuminuria is either greatly decreased or quite removed.

6. *Remarkable Case of Peritonitis.* E. J. ABBOTT, M.D. (*Amer. Prac.*, May, 1876.)

In this case, with no knowledge of the previous history, the patient was known to have died with symptoms of subacute peritonitis, with effusion.

Post mortem—the whole peritoneal surface was found covered with a layer of lymph a quarter of an inch in thickness. There were no adhesions of any consequence. “There was found just below the splenic flexure of the colon, an irregularly shaped piece of porcelain, evidently

broken from a plate or dish." It was a fourth of an inch in thickness and must have required an opening in the intestine at least an inch and a quarter in length to allow of its escape. The opening of exit had entirely healed ; it could not be found.

7. *Diphtheria affecting the Nipples.* T. L. WRIGHT, M.D. (*Cin. Lancet and Obs.*, May, 1876.)

This case is of a woman 28 years old, who, a few days after confinement, began to have sore nipples. Soon the milk was drawn with difficulty and was pinkish in color. In two weeks there appeared frequently in the milk fibrinous, stringy masses that seemed to be organized casts of the lacteal ducts. The stringy masses grew more frequent, the flow was more obstructed, and finally, in three weeks from the birth of the child, and after the breasts had become swollen and painful and threatened abscess, the nipples became covered with a thick, dense false membrane. This was dissected off carefully when it rapidly reformed. The milk was now allowed to "dry up," yet the hardness and swelling did not disappear, although the size was lessened. At the end of six months and after cancer had been feared, an abscess formed in the right breast and discharged for a week, afterward the breast became atrophied. "Associated with this fibroid condition of the right breast was a constant and severe pain in the right arm." While the difficulty was going on in the breast, there appeared an indolent swelling of the size of a hazlenut on the lower and back part of the radius. This afterward became an open sore, and discharged pus and pieces of bone. Dr. W. regarded the mammary affection as diphtheritic.

8. *A Case of Pica.* A. N. GOULD, M.D. (*Boston Med. & Surg. Jour.*, April 13, 1876.)

An unmarried woman, 43 years old, had had generally through life good health. Menstruation had been normal until within a year, when it had become profuse; the first of the flow was "muddy" and the last colorless. For two years she had had longing for unnutritious articles. At first she ate charcoal, afterward, fine sand. She would eat three or four tablespoonfuls in a day, and hardly a day passed when she did not eat some of it. She declared she had eaten "nearly a bushel" of the sand.

She had gained flesh while eating this substance, although she had some dyspnœa on going up stairs, had pale lips, and was constipated. When supplied with carbonate of iron to eat, she did not crave the sand.

III. OBSTETRICS.

1. *On Laceration of the Gravid Uterus.* J. ASHBURTON THOMPSON.
(*Obs. Jour. of Great Britain*, Jan., Feb. and March, 1876.)

The majority of obstetric writers agree upon the following seven symptoms as being characteristic of laceration of the gravid uterus: viz.: 1. Violence of the throes before rupture. 2. A peculiar pain at the time of rupture. 3. Hæmorrhage. 4. Immediate cessation of the throes. 5. Retrocession of the presentation. 6. The speedy occurrence of collapse. 7. Convulsions.

Most writers agree further, in omitting a consideration of exceptional cases of rupture; thus allowing the inference that the typical case of rupture occurs the most frequently. This paper is an examination of twenty-three cases of laceration of the gravid uterus; not selected cases, but cases collected from journals and Societies' transactions, between the years 1857 and 1873. In the paper this series of collected cases is examined with reference to the occurrence of the typical symptoms in the order which has been given:

Of the Character of the Throes preceding Rupture.—In eleven of Thompson's cases, the throes appear to have been of the usual kind. Of seven others it was uncertain whether there was a regular contraction of the uterus at any time. In four other cases, the laceration was traumatic, occurring under operation. In five other cases, the throes were variously modified. "Thus, omitting the seven cases already excepted, in five out of sixteen the throes were modified before rupture occurred; but from these five the last must be subtracted, if this symptom be regarded as a prognostic, for it was only the throe attended by rupture which was at all peculiar. 26.6 is the percentage, then, in which the throes were peculiarly aggravated before rupture in this series of cases."

Of Pain occurring at the time of Rupture.—The pain caused by the tearing of the uterine substance has been described as sudden, and excruciatingly sharp. Should it occur at the moment of contraction of the organ, this pain constitutes an element which is clearly distinguishable from the ordinary throe. This pain did not occur in the four cases of traumatic rupture; excluding these cases, in eleven of the nineteen remaining cases, this peculiar pain was not observed. In eight cases this tearing pain was noted, but the word "excruciating" seldom occurs in these clinical reports. In about 58.5 per cent., then, of the cases of laceration, a peculiar pain was not observed.

Of Hæmorrhage.—This may be either external or internal. External hæmorrhage is a rare consequence of rupture. It is spoken of but once in this series; in this instance it occurred before labor set in, and might have been of the variety known as accidental hæmorrhage. Internal hæmorrhage is more common, but it can be of but little utility as a diagnostic.

In a very interesting case of Dr. Jolly, a rapidly growing tumor was observed within the abdomen during labor; the bladder being empty, Dr. Jolly was led to surmise that a rupture had taken place, and that the tumor was a collection of blood in the peritoneal cavity. This proved to be the case. As a rule, the effusion is too small to be discovered before death. On the whole, then, hæmorrhage occurs but rarely; though it is reasonable to suppose that hæmorrhage would be inevitable if the vaginal portion of the uterine cervix, or the vagina itself, be also involved in the rent.

Of the Action of the Uterus subsequent to Rupture.—The greatest stress has always been laid on the sudden cessation of uterine action as a diagnostic of rupture; and but two writers, (Leishman and Jolly) have written of exceptions to the rule. Of the present series of cases, four, the traumatic cases, must be omitted. In two of the remaining cases the point is not noted; this leaves a remainder of seventeen cases. Of these, in nine cases the throes ceased suddenly upon rupture. In eight, the throes were either modified in some manner, or they remained unaltered. In but 52.9 per cent. of the cases, then, a little more than one-half, the throes ceased in a characteristic manner.

Of Retrocession of the Presentation.—At most, this can only be regarded as confirmatory. The presenting part of the fœtus cannot recede provided the head is impacted in the excavation; nor will the body of the fœtus recede if the head is in the world. Further, if the uterus should contract spasmodically after the rupture, the fœtus will not escape into the abdominal cavity, even though the rent be large enough to admit of its passage. If this series is analyzed with reference to this symptom, it will be found that the fœtus receded in four instances. In six other cases retrocession was not noted. In two cases the fœtus did not recede, the head being impacted. In one case, the expulsion of the head coincided with the rupture, no retrocession. And in three other cases there was no retrocession of the presentation, though the rent was large. In four cases the rupture occurred during operation.

Of the speedy occurrence of Collapse.—This symptom has been thought as characteristic of rupture as the sudden cessation of the throes. In three of these cases, the time when the collapse occurred is not noted. It is doubtful in another. In another the patient was under the influence of chloroform, and collapse was not observed; for this reason this case is omitted, though it might fairly be included because another case is included under similar circumstances, when collapse did occur, and was thought to be due to the anæsthetic. In the eighteen remaining cases, collapse occurred suddenly upon the completion of the rupture in six instances. In six other cases, it did not occur till hours or minutes after rupture. Collapse did not occur till hours or minutes after labor in six other cases. In but six of the eighteen cases, in but 33.33 per cent., did collapse suddenly supervene upon the rupture. In one case, the patient was standing upright when first seen, and rupture of the uterus was not suspected for some time afterward. In this series of cases, the degree of

collapse bears no sort of relation to the extent of injury which the uterus has suffered. * * * "The evidence of shock manifested in any particular case will depend upon other circumstances than the size of the wound, or, probably, the mode in which it occurs. It may be that the chief of these circumstances is the vital energy of the individual, which varies in each person; and with it the rate at which collapse appears may be expected to vary too. Cases are on record in which the fact of laceration has been discovered accidentally during a vaginal examination; no symptoms of any kind attending or ensuing upon it."

Convulsions.—In this series of cases convulsions have not once been noted.

From an examination of this series of cases of Thompson's, it is evident that the description in the books of a typical case of laceration of the gravid uterus cannot be applied to the majority of cases of this injury. In other words, the so-called typical case occurs but rarely, while the cases that are but barely hinted at by a few writers as exceptional, do occur more frequently than the former variety.

The medico-legal application of the foregoing facts, which is the author's real object, is of the greatest importance to practitioners of obstetrics. "In order to establish the culpability of the attendant, one has a right to demand that it should be shown, first of all, that no predisposing cause of rupture existed; and only in the second place will it be necessary to show that the determining cause was some other than the contraction of the uterus itself." The remote predisposing causes are previous laceration, Cæsarian section, and peri-uterine inflammations. The latter especially, changing the integrity of the uterine walls, rendering them liable to give way under the most trivial exciting causes. Thus in one case, the sudden contraction of the abdominal muscles, which the subject exercised to save herself from falling, was sufficient to rupture the uterus. In a case of Dr. Barnes, the uterus was lacerated spontaneously; there being apparently no change in the uterine substance. To exclude all predisposing causes in a given case, the strictest inquiry into all the antecedents of the patient is essential, especially with reference to any previous pelvic inflammation.

In the second place, before it can be said that any operative interference on the part of the attendant caused the rupture, it should be established that a rupture did not exist before the interference was made. This is not always easy, and requires the closest examination of all the symptoms which occurred during labor before the operation. Without doubt, one of the most important points to be established is the size of the foetal head, and the capacity of the woman's pelvis. When the disproportion between these structures is excessive, the danger of rupture is not so great as under other circumstances where the disproportion is slight, but not great enough to prevent the entrance of the head into the excavation, pushing a cap of the uterine tissue in front of it, and pinching the latter between the head and bony parts of the woman. It is then that, after a time, the uterine walls become weak and give way during a contraction.

2. *Case of Tubal Pregnancy.* JOHN COOKE, M.D. (*West Virginia Med. Student*, April, 1876.)

The subject, aged 35 years, multipara; last pregnancy thirteen years before. Her catamenia did not appear in June, though she had no morning sickness or other evidences of pregnancy. July 6, while ironing, she felt a sharp pain in the right iliac region, which soon subsided. During the evening of same day, while walking, she was again seized with pain in the region of right ovary, soon extending over the lower region of the abdomen. When first seen she was suffering from great pain in the abdomen, and physical prostration. Next morning she was free from pain; increased tenderness over lower abdominal region; countenance anxious and pinched. In the evening, pain had returned; restless; extremities cold; pulse small and rapid. The second morning, general condition not changed; there were now evidences of peritonitis. Tubal pregnancy, with rupture of the sac, was spoken of but not agreed upon by the counsel.

Patient died sixty hours after the first attack. At the autopsy, fully six pounds of coagulated blood was removed from the abdominal cavity; bowels distended with gas but not inflamed. The right Fallopian tube was much enlarged and inflamed; upon its anterior inferior surface, about one inch from the fimbriated extremity, there was a rent, one and one half inches in length, through which a six-weeks fœtus had escaped.

3. *Eclampsia from Mastitis.* DR. PANTHEL, Ems. (*The Clinic*, April 8, 1876.)

The woman, aged 25 years, had never had convulsions. About a year after marriage she gave birth to her first child after an easy labor. There was nothing abnormal about the puerperal week, except that she had scarcely a trace of milk, though her breasts were well developed. The child died at the end of four weeks. The woman had perfectly recovered, and was attending to her household duties. Six weeks after her confinement, she was suddenly seized with convulsions. During the visit of her attendant she was again attacked while speaking; her head was extended, eyes fixed, and her whole body was thrown into tonic and clonic spasms; there was complete loss of consciousness. The attack lasted about a quarter of an hour. Upon recovering from this attack, she complained of unpleasant sensations in her head and right breast; this organ was hard and inflamed. The attacks recurred at varying intervals for the space of four days and nights; at the end of this time, the mammary abscess had matured. The first convulsion was on Tuesday, and on Saturday morning the abscess was opened; the woman now rapidly recovered. The convulsions resembled those seen in the puerperal woman.

4. *Conception forty hours after Abortion.* SPARKMAN. (*Charleston Med. Jour. and Rev.*, April.)

The subject was about twenty-six years old; married. She had had four children and three abortions. The writer speaks of her as being

"of ardent temperament, very domestic, and devotedly attached to her husband." About four hours before her attendant's visit, she aborted a two-months foetus. Twenty-seven hours afterward, she reported herself as follows: "I have been perfectly *dry* since morning and never felt better in my life." Her husband left her the following morning, and was absent for twenty-two days. Three weeks subsequent to the abortion, she consulted her attendant concerning a nausea which she had suffered for three weeks; she feared she was pregnant; and so she proved to be, for her attendant delivered her of a ten-pound baby two hundred and seventy-eight days from the time of the first visit after the abortion. The woman and the husband admitted sexual intercourse on two occasions during the two days following the abortion.

5. *Twins with different Birthdays.* KOLLOCK. (*Charleston Med. Jour. and Rev.*, April.)

Dr. Kollock writes to the above Journal "that a negro woman was delivered, Oct. 3, at 5 P. M., of a living child, and he was called to her on the 4th, at 6.30 A.M., to deliver her of another, which was born fourteen hours after the first."

IV. THERAPEUTICS.

1. *Spider Web or Tela Araneæ in Chronic Intermittents.* L. M. JONES, M.D. (*Cin. Lancet and Observer*, May, 1876.)

Being at his wit's end, in treating a rebellious case of intermittent in a girl ten years old, with *quinine, camphor chinoidine pills, arsenic, eucalyptus, iodine*, phosphoric acid, etc., etc., with unsatisfactory results, Dr. Jones determined, upon Dr. Robert Jackson's recommendation in the U. S. Dispensary, to use spider web. He then says:

"Accordingly I went to the drug store and had some prepared in the following manner: Went with the druggist to the cellar (as it is the species of spider that inhabits cellars or dark places, that possesses medicinal properties) and with a stick I gathered cobwebs until I had a wad or bunch the size of a large-hulled walnut.

"This we put in a bottle with four ounces of good whisky, which was allowed to macerate for forty-eight hours, when it was filtered, and the liquid poured into a bottle. I carried the medicine to my patient, and left the following directions: Begin four hours before the expected chill, and give a teaspoonful every hour, until she had taken four doses, then a teaspoonful before each meal and at bedtime, until all was taken. The medicine was given as directed. The anticipated chill came, but was very light compared with the others. This, however, was the last chill that she had, which has been over four months since.

"Her general appearance has improved, color of skin is clear, the spleen

has returned to nearly its natural size, bowels regular, appetite good ; in fact, the child has so far improved that her friends call her well.

"The patient and relatives did not know what she was taking, and are still ignorant of the subject, so that the mind of the patient had nothing to do in the performance of the cure.

"I gave her the second bottle of the medicine, to be certain that the cure was effectual.

"I have since used the remedy in other cases, with the same success, and would ask that the profession give the remedy a trial in the various intermittents. I will offer no comments on the case that I have cited, or give any theory as to the action of the remedy, but shall leave the reader to his own views. I give a history of this case because I considered it an interesting one in several particulars ; also was particular in giving the treatment, that a comparison might be made in the remedies used and the results obtained ; and that the reader might see for himself that the treatment adopted by the writer was a varied one. I will add, in conclusion, that either of the prescriptions given will break up an ordinary case of intermittent fever, chronic or not."

2. *Pomegranate Bark for Tape-worm.* PROF. EDWIN FREEMAN, M.D.
(*Ec. Med. Jour.*, May, 1876.)

I succeeded in obtaining a tape worm entire, with its head, from W. S., of Avondale, which had resisted the use of a good many medicines during five years before I began to medicate its possessor for it. The worm obtained was thirty-four feet long, when it came away. Mr. S. said that he passed, at some past time, forty-two feet in one piece, but the head remained, and he has every day passed several inches, for at least three years. While he had the worm he was a large eater, and seemed to require, besides, a quart or two of coffee every morning. It caused him, at times, to be faint and dizzy, with occasional headache and weakness and sluggishness in the morning. In addition to this, there were occasionally nausea and fullness of the stomach. The best evidence of the presence of tape-worm is the passage, with the fæces, of portions of one.

Treatment.—I gave him, the first thing in the morning, two scidlitz powders, which thoroughly evacuated the bowels. I then gave him morphia sulph. gr. $\frac{1}{2}$. In an hour he began to take the pomegranate, a decoction of the bark, four ounces every fifteen minutes, until it was all taken. The decoction was prepared by the chemist, J. U. Lloyd, from the best bark, according to the formula published by Prof. Locke, in a former number of the E. M. Journal, and mixed with fluid extract jalap, dr. j.

After the third dose the worm was felt to have lost his hold on the bowel, and to be low down. The fourth dose was not taken until an hour after the third, hoping that the worm would surrender and come away. It was stubborn, however, but at the last dose submitted unconditionally, like Davy Crockett's 'coon, coiled himself into a knot, and got down and out.

The dose is a fearful one to swallow, but for those who can take it, it is effectual in ridding them of a very annoying trouble.

3. *Choleate of Soda as a Preventive of Gall Stones.* WM. C. DABNEY, M.D. (*Amer. Jour. Med. Sci.*, April, 1876.)

The article and its use, indicated above, were recommended by Prof. Schiff, of Florence, in 1874. Dr. Dabney has used it in three well-marked cases of biliary calculi diatheses, with extremely satisfactory results. The attention of physicians who have under their care any patients suffering regularly from gall-stone colic, is called to this agent. It is used in 5 to 7-grain doses, twice daily, and is a perfect solvent of the cholesterine and mucus which compose the "stones." It will prevent future attacks of colic, but will not relieve a fit of it when it is once precipitated.

V. DERMATOLOGY AND SYPHILIS.

1. *Syphilitic Headache and Neuralgia Cured by small and repeated Doses of Calomel.* PETER. (*Lancet*, July, 1875.)

The author gives the details of several cases treated in the manner recommended by Trousseau, viz.: giving about one-sixtieth of a grain of calomel every hour. The interesting features of this method of medication, as described by Dr. Peter, are: 1, The rapidity of its action; 2, The fact of its success in cases where the really specific treatment of yphilis fails. It constitutes, in a manner, *the* medicine of nocturnal syphilitic pain, but cannot replace the other plan of treatment for other syphilitic manifestations. Its use is indicated whenever the pain is intense and induces asomnia. It diminishes pain and its consequences the very first night it is given, and generally extinguishes suffering by the second night. The treatment may be carried on for three days, and that period of time is almost always enough for its success. If, however, the desired result has not been obtained, it ought then to be suspended for one or two days, so as to prevent salivation, and it can then be resumed afterwards for two days successively, in which case Dr. Peter has never seen it fail.

The plan of treatment is thought to be efficacious, because: 1st, The drug is mercury; and, 2d, The absorption of these very small doses is exceedingly rapid, and the repetition of the action takes place every hour. Whatever the action may be, adds Dr. Peter, it is to Trousseau that we are indebted for the idea of using calomel in this manner, and to him belongs all the credit.

2. *Herpes Zoster Gangrænosus Recidivus.* PROF. KAPOSI. (*Wiener Med. Wochenschr.*, 1876, No. 1.)

At a meeting of the Vienna Society of Physicians, in November, Prof. K. exhibited a unique case, a patient who has had an eruption of herpes in the course of the same nerves (cervico-brachial plexus) five times within eighteen months, and whose herpes always assumed a gan-

grenous character. The first eruption (right forearm, shoulder and sternum) was observed in April, 1874; the second (the same as the first) in June, 1874; the third (forearm and lower part of arm) in January, 1875; the fourth (like the third) in June, 1875; and the fifth in October, 1875. On October 17, the patient, a woman, aged 44 years, experienced sharp pains in the right arm and shoulder; on the 19th, the herpetic eruption began, and on the 20th already extensive gangrenous patches existed. October 21, Dr. K. found a greenish-black eschar, with ragged outlines, about the size of a silver dollar, on the right shoulder, and a number of smaller brownish eschars in its vicinity. The spinous processes of the seventh cervical, and of the dorsal and lumbar vertebræ, were painful and very tender to the touch. Oct. 22, violent pain in the right arm and shoulder; at the upper border of the scapula were two red and swollen patches of the size of a silver dollar, with numerous vesicles, isolated and grouped together, and minute eschars. Oct. 25, the vesicles are drying up. Oct. 28, to the right side of the spinous process of the second dorsal vertebra a small group of vesicles, from which a red stripe, two inches and one-half in length, and one inch in width, extends upward beyond the border of the scapula. Upon that stripe numerous vesicles appeared, which, on Oct. 31, were again in a state of desiccation; on the same day an herpetic eruption in the region of the sixth rib. In all eruptions the great tendency to gangrene was noticeable.

3. *Psoriasis of the Tongue.* TRÉLAT. (*Jour. de Med. et de Chir.*, Jan., 1876.)

The connection between lingual psoriasis and epithelioma, is illustrated in three cases. A patient with his tongue covered by psoriasis was operated upon one year later for lingual epithelioma, and died soon afterward. A second patient had at the same time epithelioma of the border of the tongue and extensive psoriasis upon the other surfaces of the organ. Ablation was not followed by its return. In a third case, a man affected with lingual psoriasis for six years had removed from his tongue a vegetating growth having the microscopic characters of epithelioma. This does not go to show that the diseases are identical, but that both may be produced by similar irritation.

4. *Alteration of the Colors of the Hair and Skin after Scarlatina.* DR. WALLENBERG. (*Vierteljahresschr. f. Dermatol. und Syphilis*, III, 1.)

H. W., aged 21 years, had a violent attack of scarlet fever, which was remarkable for the copious serous exudations in the skin. Almost over the whole body the epidermis was raised from the cutis, as though large blisters had been applied. The epidermis was thrown off in large flakes, and the exposed Malpighian layer healed over slowly with a new epidermis. The patient lost all the hair of the scalp, beard, genitals, eyebrows, eyelashes, and the nails of his fingers and toes. But the most

remarkable feature of this case was, that the patient, who had a dark complexion and dark brown hair before his sickness, exhibited, after the scarlet fever, the whitest hair and the fairest complexion that were ever observed in an albino. His skin, also, had become exceedingly sensitive, so that the irritation of mercurial ointment, or exposure to the direct sunlight, repeatedly occasioned eczema with subsequent cutaneous desquamation.

5. *Anatomy of Lupus Erythematoses.* PROF. ED. GEBER. (*Vierteljahresschr. f. Dermatol. und Syphilis*, III, 1.)

Pieces of lupous skin, taken either from living or dead bodies, were examined at once or hardened in a solution of chromic acid and diluted alcohol. The slides were colored by carmine or Leonard's ink, and then put in glycerine. The professor gives a detailed description, illustrated by lithographs, of the anatomical changes of the integument during the incipient, progressive and retrogressive stages of lupus. The substance of this report may be given as follows: The morbid process begins with a dilatation of the capillaries in the cutaneous papillæ; the cells constituting the walls of these distended capillaries become enlarged, and project into the lumen of the vessels, thus disturbing the smoothness of their walls. The current of the blood is diminished, and the blood cells accumulate until they densely fill the capillaries, when the leucocytes begin to emigrate through the walls of the vessels. In the next stage, therefore, clusters and heaps of lymphoid cells are found to surround the capillaries and small vessels, and to penetrate with them into the neighboring connective tissue of the cutis; and also to invest and crowd into the follicular structures of the skin. These products of proliferation, however, subsequently undergo a fatty degeneration, and are reabsorbed. According to the duration and intensity of the disease, the affected cutis exhibits the appearance of a more or less atrophic state.

The result of Prof. G.'s researches agrees very perfectly with what Dr. George Thin said of the histology of lupus erythematoses (*London Lancet*, Jan., 1875): "There was enormous dilatation of the capillaries, which was most marked in the papillæ and around the sweat glands, the contour of the capillaries being mostly indicated by red blood corpuscles, with which they were filled, but the vessels themselves being visible in some of the sections. * * The fact that this condition of the capillaries was found in such an early stage of the disease, and before any other changes, and that it could, if persistent for any length of time, give rise to all the changes described by other observers, led me to doubt whether lupus erythematosus primarily affects the glands of the skin."

6. *Rheumatismal Bullous Erythema with Aphthous Fever.* FÉRÉOL. (*La France Médic.*, Dec. 20, 1875.)

A woman fifty-two years old had been subject to intense neuralgic pain accompanying the menstrual epochs, and at twenty-six suffered from severe acute articular rheumatism, with cardiac complications. Great difficulty in

motion had resulted and lasted for two years. A suppurating peri-uterine phlegmon opened into the rectum at thirty. A deep abscess of the thigh and possibly of the iliac fossa, consecutive to a contusion, had also occurred. A brick dust deposit in the urine, when noticed, was always accompanied by better general health. The menopause occurred normally at fiftieth year, with some hæmorrhoidal tumors. Some sweating and itching of the skin had been noticed. Appetite, digestion and stools normal. Father and mother were rheumatic.

On Aug. 15 there were slight traces of buccal aphthæ without ptyalism. A bimanual eruption was found, insupportably painful, producing insomnia and a cerebral excitation akin to delirium.

From the points of the fingers to a short distance above the radio-carpal articulations, the skin was uniformly of a vinous red color, as if stained with raspberry juice. The line of demarkation was distinct and brusque at the wrists without any elevation of the skin. The color faded to a yellowish shade under pressure, never completely disappearing. Over the fingers the skin was tense and smooth, as if stretched over wood, with obliteration of the natural folds, but no œdema. Over the hand it was also non-œdematous, but swollen, as if infiltrated with a dense liquid not easily displaced by pressure—the latter requiring to be made with gentleness, on account of the severe pain it elicited. Over this uniformly red surface were three or four points on each hand, where pemphigoid bullæ appeared—irregular and elongated, but of moderate dimensions.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, July 3 and 17—Chicago Med. Society, regular meetings at the Washingtonian Home, 8 P. M.

Mondays, July 10 and 24—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

FRIDAYS. SOCIETIES.

Friday, July 14—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P. M.

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Original Communications.

**THE BLOOD PRESSURE IN THE LEFT VENTRICLE
AND IN THE AORTA.***

BY DR. H. GRADLE.

(From the Institute of Experimental Pathology, at Vienna.)

Some years ago Prof. Fick† made the interesting observation, that the blood pressure in the left ventricle of the dog's heart is less than in the aorta. He conducted the investigation by means of a long tube, which could be introduced through the carotid artery and aorta into the left ventricle, which was connected with a registering manometer, so that a graphic record was obtained alternately of the blood pressure in the aorta and in the left ventricle. "As soon as the tube—in open connection with the manometer—is pushed forward into the ventricle, the index of the manometer is observed to sink and record oscillations, of which the highest does not even reach the lowest pressure previously found in the

* Contained in the LXXIII Vol. of the Sitzungsberichte der k. Acad. der Wissensch

† Jeber die Schwankungen des Blutdruckes in verschiedenen Abschnitten des Gefäss systems. Würzburger Verhandlungen. 1873.

aorta. On withdrawing the tube again into the aorta, the index records pulsations high above the summits of the ventricular waves." (loc. cit. p. 232.) Hereupon Fick resorted to a second manometer, connected with the crural artery, while the first was being introduced into the heart in the above manner. He thus assured himself that the tension in the crural artery was not altered by the introduction of the tube into the heart, and furthermore that it exceeded the pressure existing in the left ventricle. After proving experimentally that this unexpected result was not due to inaccuracy of the manometers, Fick adds, as a further evidence of its correctness, that these differences in pressure only occur when the heart beats very rapidly (after section of the vagi). The difference in tension disappeared on irritation of one pneumo-gastric nerve.

As an explanation of this strange phenomenon, Fick assumes that the systolic force does not conduce as much to raise the pressure of the blood in the ventricle as to confer upon that fluid a great velocity. However, he does not deny his doubts as to the real existence of the entire phenomenon. Previously Chauveau and Marey had estimated the pressure in the aorta and ventricle of the horse, and found it about equal in both places.

In a later publication* Marey refers to these experiments, and adds that he does not hesitate to consider those differences found by Fick the result of too great an inertia of the manometers employed; in the ventricle the variations of pressure are so considerable and of such a rapidity that the manometer is not able to record them accurately.

I have tested the statements of Fick by means of his own, as well as two other methods. After opening the thorax of a curarized dog, maintained by artificial respiration, I either introduced a curved tube into the left ventricle, through a small opening made in the auricular process, or forced a sharp canula directly through the walls of the ventricle into its cavity. In some of the latter instances the heart suddenly

* *Physiologie Expérimentale. Travaux du Laboratoire de M. Marey. Paris, 1875. p. 38, note.*

ceased to beat, but in most cases the procedure was well borne, and I could even with impunity enter the canula a second time, after having withdrawn it—the wound giving rise to but little hemorrhage. The tube or canula being connected with a mercurial manometer, while a second instrument communicated with the carotid artery; I thus obtained on the paper of the kymographion the simultaneous graphic record of aortic and ventricular tension.

Having convinced myself of the correctness of Fick's statements, I sought to ascertain whether the conditions of the phenomenon are of a purely mechanical nature. A dead heart was filled with water from a tube communicating with the left auricle, the aorta was prolonged by means of a rubber hose, the manometers connected as in a living animal and the systolic contraction imitated by compression with the hand. As the result I obtained a graphic trace quite similar to those furnished by the living animal. Hereupon I constructed a model of the circulation to study the phenomenon at leisure. An ordinary rubber balloon, similar to that of Davidson's syringe, supplied with water from a reservoir with low pressure on the one side, communicated at the other end with a tube, which for the sake of convenience we will call aorta, while we may refer to the balloon as the heart of the system, and to its mechanical compression as the systole, corresponding to the bicuspid and semi-lunar valves; the balloon was also supplied with a valve at each end, opening with the current. The balloon as well as the aorta communicated besides with lateral tubes, which could either be prolonged by means of perpendicular glass tubes, the height of water in which indicated the pressure directly, or which could be connected with mercurial or Fick's manometers, for the purpose of registering the pressure on the paper of the kymographion.

The experimental conditions in this system are most readily comprehended, when the aorta is closed at its terminal end; in this case the results to be described are the same whether the aorta consists of an elastic or an inelastic tube, as glass. The efflux of water being thus prevented, the fluid rises in

both manometers to a height equal to the height of the reservoir, which being the lowest pressure attainable under the circumstances, we will call zero. On compressing the balloon a number of times the following is the result: The first systole raised the fluid to a certain height, equal in both manometers; on its cessation the pressure returns to zero in the heart, while the semi-lunar valves maintain the column of water in the aortic manometer at the point reached during the systole. The next systole, however, having but the same effect on the cardiac pressure as the first, lifts the column of water in the aortic manometer to a height exceeding the level of the fluid in the cardiac manometer itself, so that with each successive systole the difference between the cardiac and aortic pressure increases in favor of the latter. While the terminal end of the aorta is closed, the duration of the interval between the systoles is, of course, of no consequence as to the result. However, as the difference existing between the heights of the fluid in the two manometers augments, the additional increase of aortic tension becomes less and less with each following systole. The apparent contradiction, that the semi-lunar valves are opened by a systole, while the pressure in the aorta exceeds by far that in the heart itself, loses its obscurity on varying the rapidity of the systole. If the compression of the balloon is performed very slowly, the water in the aortic manometer begins to rise only when the same height has been reached in the cardiac manometer, and in this case it does not exceed the level in the latter. But as the balloon is compressed more and more rapidly a limit is formed, beyond which the difference between the two manometers begins to appear. In short, as the celerity of the systole increases, the difference between the cardiac and aortic pressure produced by the same augments. But since the semi-lunar valves can be opened only by a force exceeding the pressure exerted upon its aortic surface, we are safe in maintaining that the pressure indicated by the manometer communicating with the heart is not a full measure of the systolic force. In other words, the result of the systole is not only the augmented cardiac tension, but also the momentum conveyed to the fluid.

If the water is allowed to flow from the terminal end of the aorta, the conditions are somewhat altered, though the above considerations are still applicable. In case the entire mass of water, emptied into the aorta during the systole, is permitted to escape during the diastole, the above difference in tension, though produced during the systole, speedily disappears. But if the open end of the aorta is obstructed beyond this limit—or, what amounts to the same thing, if the interval between the systoles is correspondingly shortened—each following systole results in an augmentation of aortic tension on the same principle as when the aortic outlet is entirely closed. But in this case, also, the augmentation of aortic pressure becomes less and less with each following systole, until finally every systole raises the aortic pressure merely as much as it had fallen during the preceeding interval; so that the water in the aortic manometer pulsates at a fixed height, which however far exceeds the level of the fluid in the cardiac manometer. The difference between the cardiac and aorta manometers of a system imitating the arterial circulation therefore depends on:

- I. The force of the systole.
- II. The celerity of the systole.
- III. The duration of the interval.
- IV. The resistance to the current.

The possibility of a difference in the height of the fluid, or, in other words, the pressure in the two manometers, depends, of course, on the presence of the valve representing the semi-lunar valves, since on its removal the equilibrium is at once restored, and no further accumulation of aortic tension can be effected.

The conditions of pressure during life will be most readily appreciated by reference to the following table:

CURARIZED DOG—BOTH VAGI DIVIDED.

Time.	Oscillations of		Difference between the maximum pressure in the ventricle and aorta.
	Ventricle pressure.	Aortic pressure.	
	48—74 mm. Hg.	100—104	30 mm.
ARTIFICIAL RESPIRATION SUSPENDED.			
12 Sec.	70—104	160—164	60
12 "	70—104	164—168	64
12 "	62—98	146—150	52
12 "	60—94	148—152	58
12 "	62—98	164—168	70
12 "	72—108	180—186	78
12 "	82—120	204—210	90
12 "	88—126	220—228	102
12 "	96—138	240—244	106
ARTIFICIAL RESPIRATION RESUMED.			
12 "	120—162	234—242	80
20 "	78—116	154—162	46

From the result of this experiment, as well as many others, we learn that the oscillations of pressure in the left ventricle are much greater than those occurring in the aorta; while, however, the minimum of tension in the latter vessel far exceeds the maximum pressure found in the heart itself. The comparison of the different records shows, that—conforming with the results found on the models—the difference increases with the force of the systoles; in other words, the higher the summit of the ventricular wave the greater will be the corresponding increase of the aortic pressure. Further on, the difference will rise with the resistance to the current in the arteries; on constricting the systemic arterioles by asphyxiating the animal the aortic pressure increases more than the ventricular tension. The celerity of the systole, which is of such influence in the model, is a factor that we cannot vary at liberty during life. Lastly by prolonging the interval between the systoles by irritation of the vagus we permit more blood to pass the capillaries, and hence the aortic pressure will be lower at the beginning of each systole, the longer the duration of the diastole. This result, however, can be masked by simultaneous augmentation of the resistance to the passage of the blood in the smaller vessels; and thus, while during asphyxia the pulse becomes much less frequent (when the

vagi are intact), the difference in pressure increases, nevertheless, on account of the contraction of the arterioles.

I have attempted the destruction of the semi-lunar valves, in the living animal, by introducing a long sound through the right carotid artery, and in pushing it forward, perforating the pockets of the valve, while guided by the finger placed on the origin of the aorta. In two cases, in which the autopsy proved the destruction of two of the pockets, the cardiac trace approached that of the aortic pressure, though there was still some difference both in the height of the waves and in the absolute pressure. In a third dog, however, whose valve I succeeded in destroying entirely, the record of the ventricular waves was the exact *fac-simile* of the aortic pulsations in all details.

These observations on the circulation during life, as well as on a model imitating it, hence lead to the conclusions, that normally the blood pressure in the aorta exceeds that of the left ventricle, and that this depends on the momentum of the blood in the ventricular cavity, which is not registered by a manometer communicating with the heart. Finally, that the accumulation of tension in the aorta is possible only when the restoration of equilibrium is prevented by the action of the semi-lunar valves.

ON THE STUDY OF ETIOLOGY; ITS IMPORTANCE, AND THE NEEDED METHODS TO INSURE SUCCESS.

By N. S. DAVIS, A. M., M. D., CHICAGO, ILL.

(Read to the Chicago Medical Society, May 1st, 1876.)

To the thoughtful practitioner there is no department of medical science in so unsatisfactory a condition as that which relates to the *causes* of disease. With a steadily increasing tendency in the professional mind to refer all acute diseases, whether epidemic, endemic or sporadic, to specific causes or viruses, capable of propagation by fermentative or zymotic

action, there is an equal tendency to indulge in hypotheses instead of carefully observed facts. It is so much easier, and takes so much less time, to invent a plausible theory and then use it as though it had been already verified, than to patiently observe a sufficient number and variety of facts to afford a reliable deduction, that few can resist the temptation to follow the former course. It is amusing sometimes to notice how readily, and apparently unconsciously, we assume one purely hypothetical proposition and then make it the basis of a lengthy paper or a monograph. For instance, in a paper read to another society in this city a few months since, the writer assumed substantially, first, that every *specific* disease must have a specific cause; second, that cholera infantum and dysentery were *specific* diseases, hence, logically, they must each depend on a specific infectious cause, and should be put together in one group; while the cases of simple diarrhœa, not being *specific*, and consequently not dependent on a specific infection, should constitute a second group. This latter group he again divides into no less than *five* classes or varieties, according to their assumed *causes*, namely: 1st, from the reflex irritation of dentition; 2d, from "sepsis or toxæmia;" 3d, from "acute indigestion;" 4th, from malarial infection; 5th, from intestinal catarrh, produced by cold and damp. Thus, in a paper written avowedly for the purpose of separating the different bowel affections of children from each other, we have one group embracing dysentery and cholera infantum, and another embracing five varieties of "simple diarrhœa," all based on supposed differences in their *causation*. There is no intimation as to how we are to distinguish one of these varieties from another at the bedside of the patients. To sustain the idea that dysentery is a *specific disease* produced by a specific cause, it is declared to be something more than, and different from *ileo-colitis*, although presenting similar symptoms and the same post-mortem appearances. He speaks of the "germs of cholera" bringing forth cholera "as immutably as the grain of corn brings forth corn, and no other grain," with as much confidence as though such *germs* had been fully identified and their specific influence established. And yet he

says, "whether its (cholera infantum) essential pathology lies in the presence of bacteria or a blood ferment, we cannot perhaps declare to-day"; and then, on the same page, makes the following declaration: "Respecting the real causation of cholera infantum we must confess our utter ignorance, for nothing is positively known of it." Mark the progress: First, specific *germs* as the cause of a disease are not only spoken of confidently, but an *immutable law* of action assigned them. Second, we are reminded that it is *uncertain* whether the essential pathology of the same disease lies in the presence of bacteria or a blood ferment. Third, he confesses "utter ignorance" of the real causation of the disease, saying that "nothing is positively known of it."* To make confusion more confounding, it will be noticed that in the second proposition just stated, the "essential pathology" of disease and the *cause* are made identical. In other words, the *cause* and the *thing caused* are one and the same. I have not alluded to this essay of one of our most intelligent physicians for the purpose of criticising it, or of finding fault with its author, but simply to illustrate the point under consideration. The same disposition to assume the existence of causes acknowledged not to have been verified by any adequate degree of proof, is manifested by writers of the highest authority.

Thus, in Ziemssen's *Cyclopædia of the Practice of Medicine*, now in the process of publication, etiology enters largely into the basis of classification or arrangement of diseases. And a large portion of the most important diseases that come under our observation are designated acute and chronic "infectious diseases;" thereby implying that they depend for their essential cause upon some specific infectious poison. In the introductory chapter to the first volume, Liebermeister says: "Under the name of *Infectious Diseases* we grouped together those affections which we know, or at least *believe*, must originate through the infection of the system with certain peculiar poisonous matters, and which are mainly distinguished from the ordinary poisons by the fact that they can reproduce themselves, under favoring conditions, to an endless degree." Again

* See CHICAGO MEDICAL JOURNAL AND EXAMINER, Jan., 1876, pp. 16 and 17.

he says, "the poisons of infectious diseases can reproduce themselves, and to an unlimited extent." Although this eminent writer, in this same introductory chapter, freely admits that it is still an open question whether the supposed *infectious poisons* are living germs—"contagium vivum"—or inorganic materials; and that "in the large majority of infectious diseases the poisons by which they are called into activity have been hitherto unknown;" thereby clearly admitting the whole to be nothing more than a plausible hypothesis; yet the simple fact that a long list of important diseases are classed under that name will lead others to speak and write volumes in a style of positive phraseology, as though every hypothetical infectious poison were a demonstrated fact. Indeed, Liebermeister himself, while fully admitting that his doctrine of a "contagium vivum," or living self-propagable germs as causes of disease, was first rendered popular by the investigations of Lieuenhæch, and subsequently abandoned, and now again revived only under more favorable auspices, but requiring for its establishment much additional and careful investigation, is constantly using expressions which fairly imply that such *germs* and their action as causes of disease are already demonstrated facts. It is this almost universal disposition to make a limited number of imperfectly observed facts the basis of plausible hypotheses, or to boldly assume the existence of germs, miasms, contagions, etc., as causes of disease, and to endow them with just such properties and capabilities as are necessary to make them serve our purposes, that has filled the pages of medical literature with a heterogeneous mixture of facts and fancies, or assumptions, sufficient to exhaust the patience of a Job and confound the wisdom of a Solomon. Yet, when we remember that much of our progress in the rational treatment of disease, and nearly all of advancement in sanitary science, must depend on the extent and accuracy of our knowledge of *etiology*, we shall realize the importance of any measures really calculated to bring into existence well devised plans for systematic observation of facts until they afford reliable deductions, instead of fragmentary

observation sufficient only for the suggestion of plausible theories.

The difficulties encountered in the study of this branch of medical science are more numerous and troublesome than in any other department. This arises from the fact that the questions presented for solution are more complicated. In other words, the factors or elements necessary to be taken into consideration in solving every problem concerning the causation of disease, are not only numerous, but many of the factors are themselves complex. As living beings we move in an atmosphere containing many and constantly varying elements and properties, yet holding the most intimate relations to the vital processes within us; and we are subject to the impress of forces, material and mental, of the most varied character. In studying pathology we have directly before us the phenomena during life, and the results in the diseased structures after death. In the study of therapeutics we hold the medicinal agents in our own hands, control their administration and have the opportunity to watch their effects. But in the study of etiology the agents and forces active in the production of disease, neither warn us of their approach nor tarry for our inspection. Yet, with the exception of the specific viruses of variola, rubeola, scarlatina, syphilis, and a few others, there is no doubt but that all the causes of disease, whether consisting of living germs — *contagium vivum*,—inorganic poisons, or simple modifications of the natural elements and forces that surround us, act only under certain laws or “favoring conditions.” Hence the first steps of real permanent progress must consist in determining these favoring conditions. For, though Liebermeister and others often broadly assert that it is the peculiar characteristic of infectious poisons that they are capable of self-propagation, and that to an unlimited extent, whether in the body or exterior to it, yet this is true *only* in the presence of certain necessary conditions. That the prevalence of many important diseases is influenced to a very great degree by season of the year and local sanitary conditions, is apparent to all. For instance, the bowel affections of children, cholera, periodical fevers, yellow fever, etc., prevail almost

wholly in the summer and autumn, while pneumonia, croup, catarrh, and rheumatism prevail chiefly in the winter and spring. But if we attempt to go beyond these general and easily recognized facts, and inquire for the particular element or elements more immediately concerned in the production of any one of these diseases, we are met by difficulties not easily overcome.

Chief among these difficulties, is the absence of continuous carefully recorded facts, both in regard to the appreciable conditions and qualities of the atmosphere, and the *date* of the initial symptoms of diseases. We have an abundance of meteorological tables presenting the *mean* daily, monthly, and annual temperature, the moisture, the rainfall, and the extremes of heat and cold; but the equally important items, relating to the direction of the winds, the daily variations of temperature, and the electric and ozonic conditions of the atmosphere, are either omitted or so imperfect as to be of little value. On the other hand, recorded observations in regard to the date of the commencement of the active phenomena of disease, are almost entirely absent from the pages of our medical literature. The statistics of mortality give us only the date of deaths, but neither inform us correctly concerning the whole number of cases of sickness, nor the date at which any of the cases begin. To study satisfactorily the causes of all acute diseases not known to be propagated by specific contagion engendered in the body of the sick, we need three distinct series of observations and record, made simultaneously and in a sufficient number of places, and continued through a series of years.

One of these should consist of a complete registry of atmospheric conditions, including electricity and ozone. The observations and records now made under the direction of the signal service bureau of the general government, include a sufficient number of stations, and are sufficiently complete, except in regard to electricity and ozone. Another series of observations should be made in the same localities where the meteorological records are kept (so far as these are inhabited) by active and intelligent practitioners of medicine, who should

endeavor to ascertain and record the exact date of the commencement of active symptoms in all attacks of acute disease coming under their observation, and the date of relapses when such occur. A third series should consist in a systematic microscopical examination of the atmosphere, the dew and the drinking water, in regard to a uniform plan, and in as many of the same localities where the meteorological and clinical observations are made, as competent observers could be found who would faithfully carry on the work. It is obvious that a careful comparison of the results of the first two series of observations would enable us to know the exact relation between given conditions of the atmosphere and the development of different forms of disease. It would enable us further to trace the relation between the *degree* of certain atmospheric conditions and the *severity* of the attacks of disease. While the third series of observations, compared with the results of the first and second, would go far toward deciding the question whether the coincidence of certain atmospheric conditions developed special organic germs; and whether these bore any direct relation to the commencement, progress and decline of certain forms of disease.

It is only by carefully considered methods of investigation, established in many localities, and executed faithfully through a series of years, that all the data can be obtained for determining the true etiology of acute diseases, whether endemic, epidemic or sporadic. With the aid now attainable from the signal service bureau of the general government, covering the most expensive part of the series of investigations needed, this and all similar medical societies could easily plan and execute such arrangements as would secure the coincident clinical and microscopical observations and records. Let as many of the members engaged in active general practice as possible, make it a rule to ascertain and note in a memorandum book for that purpose every case of acute disease coming under their observation, specifying as exactly as possible the *date* of the commencement of symptoms of disease. Let them once in three or six months tabulate these. Let a sufficient number be engaged to make daily examinations with the microscope.

Let another set keep a daily record of the electric and ozonic conditions of the atmosphere. Let the tabulated statements of all of these be reported to a committee appointed for that purpose, once a year. And when this committee has carefully compared the several series of observations and the meteorological records, let them condense the same into one tabulated report, putting one copy on file and sending one to the committee on the same subject appointed by the proper section of the American Medical Association; by whom it should be carefully compared with similar reports from all other societies, and the results published annually in the transactions of the Association.

It is true that such a scheme would require, on the part of all engaged in it, much patience and pains-taking labor; and this, above everything else, is just what the science and literature of our profession most need. At present we are overwhelmed in every direction by detached facts, partial or incomplete observations, imperfect records, and hasty generalizations. And if this, and kindred societies, acting in concert with the proper sections of the American Medical Association, would give more time to the devising of more complete methods of investigation, and the patient supervision of their execution until completed, they would do more to advance the science and art of medicine in five years, than could be accomplished in twenty by receiving and discussing reports and papers presented by individual members in the ordinary way. And not only this, but every member engaging in such systematic observations, and the keeping of records, would be doubly compensated by the increased mental discipline, habits of observation, and accuracy of knowledge which he would acquire.

FIBROID TUMORS OF THE UTERUS.

REPORTED BY J. B. CRANDALL, M. D., STERLING, ILL.

Laura King, aged thirty-seven years, never has been pregnant. The patient's early history I give as she gave it to me.

At the early age of eleven years she commenced to have her menstrual periods. She had a moderate flow at each monthly period for some four or five months, when they ceased and did not reappear until about eighteen months later. Her health being rather poor *ad interim*, again at the age of thirteen her health began to improve, her menses reappeared and continued regular for some twelve months. After that her periods averaged from three to five months; her health being very changeable until she was about sixteen. She was then taken down with a fever and had a complication of diseases; was confined to her bed for several months. Her last complication was soreness and great pain over the region of the uterus; said that her attending physician called it inflammation of the womb. But she finally recovered, and at the age of seventeen she got strong again, her periods became quite regular, and she enjoyed tolerably good health, with the exception of more or less trouble from granulated eye lids, up to the date of the development of fibroids in the uterus.

Her attention was first called to a circumscribed spot about two inches below and to the left of the umbilicus, on or about the first of June, 1875, which seemed quite hard to the touch. Mrs. K. was residing at an adjoining town, and called upon a physician who recommended a course of hip baths, blisters, and irritating plasters. She did not improve under this treatment, the tumor increased in size, and her general health was gradually failing.

Her case becoming an alarming one to herself and friends, she was induced to visit Chicago for the purpose of consulting Prof. W. H. Byford, December 13, 1875. After making the necessary examination Dr. Byford gave her a letter with the diagnosis of her case and plan of treatment to hand to her attending physician in Sterling. The contents of the letter are as follows:

CHICAGO, Dec. 15th, 1875.

MY DEAR DOCTOR: Mrs. Arthur King, of Sterling, Illinois, visited me a day or two since. I find her the subject of a fibrous tumor of the uterus that extends almost as high as the

umbilicus. It is developed mostly in the right side of the organ. I prescribed for her Squibb's fluid extract of ergot, hoping it might benefit, if it did not cure her. I sent by her a copy of my address before the American Medical Association, in which you will find all that I can say of the treatment of fibrous tumors of the uterus. I cannot advise any better course of treatment than is there given particularly, and I have great faith, as you will see, in the efficacy of ergot in the treatment of these cases.

I am very respectfully,

W. H. BYFORD.

Mrs. King, upon her return from Chicago, delayed taking the medicine ordered by Prof. Byford for some six or seven days. She took the first dose as ordered, 30 drops of Squibb's fluid extract of ergot on the morning of Dec. 20th, took three doses during the day. Pains commenced soon after taking the second dose. They were excruciatingly severe for some three hours, after which they continued less severely for two days and nights. She had more or less hemorrhage from the uterus after taking the ergot.

Dec. 26th, 1875, made an examination, which confirmed that made by Prof. Byford, only the tumor had risen a little above the umbilicus. The patient was in a state of nervous prostration and worn out by severe pain and loss of sleep. The pulse was very feeble and almost running together, numbering from 110 to 120 per minute; skin dry and hot; temperature 100°, with great pain and tenderness over the uterus and lower bowels. The feet were drawn up; the face bore a pinched and peculiar expression, common in cases of peritoneal inflammation.

Dec. 27th. Ordered morphia sulphate gr. $\frac{1}{4}$, to be repeated every fourth hour. Patient became easier and slept for about four hours after the fourth dose. I also gave fluid extract aconite gtt. iv, in water, to be repeated every third hour.

Dec. 28th. Patient quiet, and the symptoms were all changed for the better. Continued the morphia and aconite for about a week, giving smaller doses and at longer intervals.

Jan. 5th, 1876. All febrile symptoms having subsided the patient was left quite weak. Ordered the following:

R	Ferri. et Quin. Citrat,	3 i.
	Acidi Citrici,	3 ij.
	Spts. Vin. Gallici, {	
	Syr. Simpl., }	aa. 3 ij.

Dose, teaspoonful four times a day, with nourishing diet, beef tea and bitter ale, to be taken *pro re nata*. To procure rest, ordered a small opii. et camph. pill at bed time.

Jan. 11th. The patient commenced to pass from the uterus small masses of fibrous growths, ranging in size from that of a small chestnut to an English walnut. There were also portions of fleshy substance that came away that evidently belonged to a much larger tumor, as the edges were rough and uneven, showing they had been torn from the main tumor. The odor from those pieces was very offensive. This discharge of foreign growth lasted for about ten days, the smaller ones coming first, which were in the main free from decomposition, but the larger were very offensive and much decayed. The volume of the uterus was much diminished, and as the tenderness and hardness of the organ had abated, the patient was on July 21st ordered to continue the use of the ergot. She had up to this date taken only three doses. It was continued for a week but had no apparent effect except to nauseate and keep her from taking food. Patient had no pains this time from the use of ergot; had a discharge of yellowish matter like thin pus. The ergot was discontinued for one week.

Feb. 1st. Again commenced the use of ergot as first ordered, and continued it for two weeks without much effect, the discharge becoming lighter and less in quantity, and less offensive.

Feb. 14th. Patient is drinking ale; up and about the house; gaining in every respect. The uterus is of normal size and position. She has gained ten pounds in weight; says that she feels quite well, and in fact like a new being.

Feb. 26th. Called and found Mrs. K. about her work, and completely cured.

It appears that the first three doses of ergot taken by this patient were the cause of her recovery. They produced such strong and protracted contractions of the uterus as to break up the larger tumor as well as the adhesions of the smaller ones, which were then set free and discharged, as heretofore described.

REPORT OF A CASE OF SUICIDAL MELANCHOLIA WITH A GENERAL DESCRIPTION OF THE DISEASE,

AND SOME REMARKS ON ITS MEDICO-LEGAL RELATIONS.

By D. R. BROWER, M. D.,

Late Superintendent Eastern Lunatic Asylum of Virginia.

Mr. A. B. insured his life for the benefit of his wife, in a Connecticut Mutual Life Insurance Company in the year 1866, and committed suicide in the year 1871. In due time his wife presented the necessary evidence of death and demanded the payment of the policy. The Company refused the demand for two reasons, to-wit: first, that the assured died by his own hand, and second, that he had been intemperate during the term of the policy to such a degree as to impair his general health. The policy according to its express provision was rendered null and void by the existence of either of these conditions. The wife brought action in court to recover the sum, and rejoined to the plea of the Company that her husband was insane at the time of his death and not responsible for the suicide, and that he was not intemperate to the degree alleged.

The case was tried before Judge Hopkins of Wisconsin, sitting in the United States District Court of Chicago. The attorney for the plaintiff summoned Drs. Norman Bridge, E. H. Horsey and the writer, all of Chicago, to testify as experts.

The evidence in the case furnished the following history: Mr. A. B. was a carpenter, with very little education; he

worked at his trade for a number of years, until impairment of his general health compelled him to abandon it ; he then entered upon first the grocery and then the furniture business, but after the great fire in Chicago, came to this city, resumed his trade and continued to work at it until about a week before his death. He had been in the habit of drinking ardent spirits for many years, but not to a sufficient extent to warrant its being called excessive, and for a week previous to his death drank none at all. He was a man of cheerful disposition and social temperament ; his family relations had always been pleasant, and no serious calamity or bereavement of any kind had befallen him. About a week before his death he stopped work, said that he was sick, became depressed and solitary in his habits, spent much time in his room alone, had no disposition to indulge in the pastimes of his friends, and insisted that some terrible calamity was about to befall him. He was restless at night ; he frequently awoke his bed-fellow to tell him he could not sleep and that he heard strange noises ; he complained of pain in his head ; he lost his appetite ; he at times would complain of feeling very chilly, so much so that he would put his overcoat on and sit close to the stove : he would frequently and in such a manner as to excite the suspicion that something was wrong with him, jump up, leave the room, go out of doors without any apparent object, be gone a short time and return ; he would almost every day declare his intention of going to work, but when the time came to start would change his mind, then promise to go the next day, but always with the same result. The morning of the suicide found him unusually cheerful and social, so much so that he played at cards with his comrades, and attended to business, in fact settled up his accounts of partnership work done with them. At noon they separated, his companions went to dinner and he to his bed chamber, and when they next saw him he was lying on his bed dead, with his throat cut, and the pocket knife with which the act was done beside him.

No physician attended him during his sickness and nothing was ascertained concerning his antecedent history nor that of his family.

The experts were called upon to give a general description of suicidal insanity, and then had submitted to them a hypothetical case embracing all the principal points of the evidence above given, and were required to give their opinion as to whether or not this hypothetical case was one of insanity. The experts agreed in opinion that it was.

The defense did not press the plea of inebriety, but they requested that the jury be instructed that not only must the plaintiff prove insanity, but such kind and degree of insanity as would deprive the assured of his capacity of understanding the nature of the act he was about to commit, and the consequences that would result from it; in other words that the act must have been committed while under the influence of delirium or irresistible insane impulse, in order to avoid its consequences.

The court refused to give the instructions requested by the defense, and read as the rule of law that must govern the case, the opinion rendered by Mr. Justice Hunt, U. S. Supreme Court, in the case of *Life Insurance Co. v. Terry*, 15 Wallace, 580, the substance of which is as follows: If the assured being in the possession of his ordinary reasoning faculties, from anger, pride, jealousy, or a desire to escape from the ills of life, intentionally takes his own life, the proviso attaches, and there can be no recovery. If the death is caused by the voluntary act of the assured, he knowing and intending that his death shall be the result of his act, but when his reasoning faculties are so far impaired that he is not able to understand the moral character, the general nature, consequence and effect of the act he is about to commit, or when he is impelled thereto by an insane impulse which he has not the power to resist, such death is not within the contemplation of the parties to the contract, and the insurer is liable.

The jury after deliberating for twenty-four hours were discharged. They had agreed on the question of the man's insanity, but disagreed as to its sufficiency to relieve him from the responsibility of the suicide.

This case of Mr. A. B. is evidently one of suicidal melan-

cholia, and we shall now invite your attention to a succinct description of this form of insanity.

In the first place it is well to state that insanity is a manifestation of cerebral disease, not a disease *per se*, but a symptom of disease; that it cannot be encompassed within a definition sufficiently comprehensive to include all its manifold manifestations and yet sufficiently circumscribed to exclude those forms of brain disease that are not cases of alienation. Insanity is merely a relative condition, a departure from a condition of sanity, therefore without being well acquainted with the mental manifestation of the brain in a state of health, it is impossible for us to successfully determine and appreciate those manifestations which are the result of disease. It is necessary, in making this comparison, that each mind be compared with itself, inasmuch as no two persons are constituted alike, and hence one may do with impunity many things that if done by another would be regarded as unequivocal evidence of insanity.

In the next place it is well for us to agree upon classification in order to intelligently consider the subject, for alienists differ widely as to the best method of classifying insanity, and have proposed many systems. Without entering upon any discussion of this point, we shall slightly modify an old classification, and divide insanity into three classes, as follows: first, states of mental weakness, including amentia and dementia; second, states of mental exaltation, including mania and monomania; third, states of mental depression, including melancholia. Amentia is unsoundness of mind from arrest of development, either congenital or occurring in childhood, and is divided into idiocy, imbecility, and moral insanity. Dementia is diminished activity, or inertness of the faculties, occurring subsequent to their mature development, is generally a sequence of other forms of insanity, and presents all gradations of mental weakness, from a condition resembling the mild enfeeblement of old age to a condition of complete fatuity. Mania and monomania are both characterised by a predominance of exaltation, but differ from each other in the amount of intellectual or emotional impairment.

Melancholia is that form of insanity which is characterised by a predominance of mental depression. This depression, however, is not always present, for it sometimes gives way to an excitement difficult to distinguish from mania, and sometimes to a condition closely approximating the normal mental state of the individual. This form of insanity is frequently only the initiatory stage of mania, monomania, or dementia. The principal cause of melancholia is hereditary transmission, but any cause that will produce debility of the physical structure, or impairment of the moral or intellectual faculties, may result in this form of insanity. Its development is at times so gradual that we fail to notice it until some overt act calls our attention to its existence, and then going back and critically examining the symptoms of our patient we may detect many evidences of derangement that at the time we permitted to pass as too trivial to notice. Its development is at other times very sudden, coming on as the result of some great calamity, or severe nervous or mental shock.

In the beginning of melancholia, the intellectual faculties may be perfectly unimpaired, the only morbid phenomenon being manifest through the affective faculties, the feelings, or emotions of the patient. He may be filled with sorrow, grief, despondency, or serious apprehensions, and fully appreciate his situation, but unable to account for the strange and unendurable misery that overwhelms him. He may attend to his ordinary occupations as usual, and by concealing his emotions from his friends, pass among them as perfectly sane.

As the disease progresses the depression becomes deeper and deeper, the mind dwells more and more constantly on the one idea, the patient takes less and less interest in things around him, forsakes his former associates and dwells in solitude. Still further progress brings intellectual impairment and develops delusions. If the patient is of a religious temperament his delusions will assume the religious type; he will mourn over his lost soul; he will grieve over unpardonable sin; he will imagine himself overwhelmed by horrible crimes he thinks he has committed; he will beg you to save him from impending destruction. If the religious element does

not predominate, his delusions may arise from some fancied change in his bodily condition; he may believe himself dangerously ill, suffering from a loathsome and fatal disease, or one of an extremely excruciating character; he may imagine that he has lost the use of his limbs, or that his legs are made of glass, and will allow no one to touch them for fear of breakage; or he may suppose that some horrible animal has taken up its abode in his body. Sometimes this perversion of sensation is the result of impressions propagated by disease, as revealed by *post mortem* examination. For example, a woman who imagined herself pregnant with the devil was found after death to have hydatids of the uterus. At other times they are disconnected with any such impressions. A case is related of a man who was relieved of a snake he imagined in his bowels, by a pretended surgical operation, but afterwards took up the notion that the snake had left its ova behind, and that he would soon be filled with other snakes; but his physician made the ingenious reply that in this he was entirely mistaken, inasmuch as the snake was a male, and thus completely dissipated his delusion.

Notwithstanding the emphatic character of delusions, and the fondness of the patient to dwell upon them, yet the mind may exhibit no impairment of its original vigor, nor any unsoundness whatever on any other topics.

The physical symptoms generally found present in melancholia are, pain, with a sense of weight, throbbing, fullness, giddiness in the head; insomnia; with restlessness; impairment of the functions of the special senses, amounting, in many cases, to hallucination of sight, sound, taste, or smell; anæsthesia, or hyperæsthesia of the skin; impairment of general nutrition and impoverishment of the blood, in consequence of which the body become emaciated, skin pale and sallow, the muscles feeble and relaxed, the strength fails, and in short we may have all the symptoms of anæmia; the digestive system is disordered, the appetite is feeble or capricious, there is sometimes complete anorexia; the respiratory and circulating systems are frequently deranged; the heart's action may be irregular; attacks of palpitation are frequent; the respiration

is sometimes very slow and labored, at other times exceedingly hurried; the pulse is feeble and compressible, and the extremities are cold; the menstrual functions are often deranged, and we may have amenorrhœa, menorrhagia, or leucorrhœa, and the temperature will be found below the normal standard.

Suicidal melancholia differs from the melancholia above described only in the suicidal manifestation; the majority of cases of melancholia, particularly those in which hypochondria is present, naturally tend to suicide. It is the result specially to be feared and most carefully to be guarded against in every case.

Suicide is, in the opinion of many people, conclusive evidence of insanity. These people, fortunate in the possession of healthy and well balanced minds, with no neurotic inheritance, cannot in any other way account for so strong and unnatural a phenomena. This opinion, popular as it is, is not sustained by a careful consideration of the subject. There are some, who disbelieving in a future state, will, without hesitation, when met by obstacles in life that seem insurmountable, seek to terminate their existence rather than attempt to encounter them. Many wise men have written in defense of it. The patriotic Roman was taught that it was better to die by his own hand than submit to slavery. The loss of power, wealth, or dearly loved friends, constitute motives sufficient to overpower such as prefer to seek possible good hereafter rather than be compelled to suffer certain misery here; refusing to accept the immortal poet's precept, that it is better

"To bear those ills we have
Than fly to others that we know not of."

In all cases of suicide from moral motives alone, that is cases unaccompanied by a pathological condition of the brain, there is always, in our opinion, a motive more or less well defined; it may be of anger, pride, jealousy, or a desire to escape from the ills of life, and when a motive does not exist, it is reasonable to attribute the act to disease. This disease may be unobserved. There are many people engaged in the

pursuit of their ordinary occupation, moving along in the even tenor of their ways, totally unsuspected of any mental disturbance, and who might complete their journey of life unsuspected but for some overt act which calls more careful attention to their daily walk and conversation. An interesting case is related as occurring in France, of a man who for over twenty years filled a responsible position under the government with great skill, so much so that he was several times promoted as a reward for his assiduity, his immediate superior in office visited him at regular intervals, and on the occasion of one of the visits, the man shot him dead and immediately killed himself. Their relations had always been agreeable, and the affairs of his office were found to be in perfect condition, but among his papers were found a diary and other writings giving unmistakeable evidence of delusional insanity of many years standing.

The suicidal impulse may be excited in persons predisposed to it by some surrounding circumstances, such as the sight of murderous weapons, standing on the edge of precipices, etc. Most of us have doubtless met with people perfectly sane, whose emotions are so easily aroused that they feel, under certain circumstances, an impulse to self-destruction very difficult to control. We know a legal gentleman distinguished for his great mental ability, who cannot stand at the stern of a vessel in motion and watch the agitation of the water without feeling an almost irresistible impulse to jump over. We have met many persons who cannot ascend a high tower or go to the verge of a precipice and look down, without feeling an intense desire to jump off. In any of these cases let any circumstance hold the intellectual powers of the man at abeyance for a single moment and the suicidal act will be the result.

The suicidal impulse is frequently hereditary. Dr. Rush tells us of a family in which the mother committed suicide, and the two daughters and two sons followed her example. We are told of another family in which the great grandfather, grandfather and father committed suicide.

If the case of Mr. A. B. is tried by the description above

given, it will be found to present a sufficient number of symptoms therein described to warrant the diagnosis of suicidal melancholia. The case also directs our attention to the medico-legal relations of this form of insanity.

The courts have established the rule that suicide is a *felo de se* when committed voluntarily by a person who is in the possession of his ordinary reasoning faculties. It then avoids the policy according to the express stipulations of the contract of insurance. The courts very correctly refuse to recognize it as conclusive evidence of insanity, but very greatly err in considering it as the act of a sane and rational mind unless preceded by manifest insanity. The whole subject of the medico-legal relations of the insane has been invested with a dense net-work of unreasonable technicalities and traditional notions. Tests of responsibility have been thrust upon us that fail to recognize the wonderful advance that has been made in the pathology and treatment of insanity, and are made infallible guides in all cases. The insane man is expected to reason correctly upon the questions of right and wrong, to form his conclusions upon the same general principles, and in the same general manner that the sane man does. Equity and common sense have frequently been sacrificed upon the altar of tradition. We are told by jurists that the insane man who commits a crime must be punished to deter other insane men from committing criminal acts, thereby proclaiming that the insane are capable of the same correct intellectual judgment and moral perception that the sane are. In our humble judgment, on the contrary, the execution of every insane man in the world but one, for homicide, would not in the slightest degree deter the one from committing the same act should he be seized with the homicidal impulse.

The celebrated case of *Borradaile v. Hunter*, in many respects similar to the one above described, furnished for many years the rules of law governing all such cases. In this the jury found that the assured voluntarily took his own life, intending so to do, but that at the time of the act he was not capable of judging between right and wrong. Judgment went for the defendant, which was sustained upon appeal to

the full bench — thus establishing the remarkable rule that a man who is incapable of judging between right and wrong should be held responsible for criminal acts; a rule, in our opinion, very far removed from equity and common sense. Judge Hopkins showed, in the present case, by giving to the jury the instructions and rules contained in the opinion rendered by Judge Hunt in the case before stated, a much more humane and enlightened appreciation of the peculiarities of the insane mind. This opinion of Mr. Justice Hunt declares, first, that the act of suicide must not only be intentional, but the person committing it must be in the possession of his ordinary reasoning faculties to make it avoid the policy; second, that the death may be the voluntary act of the assured, he knowing and intending that death should be the result of the act, yet he is not responsible if his reasoning faculties are so far impaired that he is not able to understand the moral character, the general nature, consequences and effect of the act; and third, that the man is not responsible if he was impelled to the suicide by an insane impulse.

The liberality of the opinion consists in its first and second declarations, which virtually set aside the judgment in the *Borradaile v. Hunter* case, by declaring that suicide may be a voluntary act in all respects and yet carry with it no criminal responsibility. When we consider this opinion in comparison with those previously uttered, we are struck with its great liberality and advancement, and are encouraged with the hope that the day is not far distant when all the courts will abandon the traditions that now invest them when considering the medico-legal relations of the insane, and will weigh each case in the balance of equity by itself, without any arbitrary tests of responsibility to complicate the calculation, and will unhesitatingly relieve from criminal responsibility all cases of insanity that eventuate in suicide.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES, COMPARED WITH THAT OF OTHER REGIONS.

By EDMUND ANDREWS, A.M., M.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF SURGERY IN CHICAGO MEDICAL COLLEGE,

ASSISTED BY THOS. B. LACEY, M.D.,

ASSISTANT SURGEON IN THE NATIONAL SOLDIERS' HOME.

(Continued.)

OPINIONS OF AUTHORS AND CONCLUSIONS.

The great authorities on surgery, give us almost no advice about the particular indications for amputation of the arm, but fall back on the established general principles, which are these :

1. The superior extremity is of more value than the inferior, and should be sacrificed with more reluctance.

2. Gangrene and diseases of its joints are less dangerous than in the inferior extremity ; hence in certain cases it is less perilous to delay the operation, until its necessity is fully proved.

3. The principal causes requiring amputation of the arm are : first, injuries, where the part of the limb below is pulseless and dead ; secondly, where gangrene from disease has destroyed the limb ; thirdly, where cancer of the member is so situated as to be incapable of full extirpation without amputation.

Severe compound and comminuted fractures of the shaft of the humerus and even of the elbow or the shoulder, do not require amputation, if there is circulation in the part below. Extensive laceration of the soft parts with comminution of the bone makes no difference. Modern surgeons are not appalled by the ghastly looks of the wound. The bone and all the skin and muscles may be severed, but if the artery, and some of the nerves and veins are left, the limb may usually be saved.

In like manner, no one now thinks of amputating the arm for caries of the joints, nor for necrosis of the shaft of the humerus, unless some special circumstances render it necessary to disregard the usual principles.

In short, the conservative surgeons have largely won the day, so far as the superior extremity is concerned. At the same time the amputations, if required, are far less dangerous than those of the lower extremity. The primary operations are a little less fatal than the secondary, and the pathological ones (amputations of complaisance excepted) are less than half as dangerous as the traumatic. The mortality of all amputations of the arm in the Lake States is, taking all kinds together, only 11 per cent., which is about one-third the mortality abroad.

Demme, Stromeyer, and Max Schmidt (Schmidt's *Jahrbücher*, 1872,) agree that in gunshot wounds of the elbow joint, conservative treatment is four times more dangerous than resection, while amputation of the arm is intermediate between them. They recommend the conservative treatment, therefore, for mild cases only, and amputation only for cases not admitting of resection. Legouest, (*Traité de Chirurgie d' Armée*, p. 530,) says, speaking of military surgery, "When the elbow has received a comminuted fracture, and the brachial artery is opened, it is necessary to amputate the arm immediately." In my opinion this should depend on whether the collateral circulation keeps up the supply of blood. If it does, and if some of the large nerves are also intact, resection should be preferred.

AMPUTATIONS AT THE ELBOW JOINT.

Of these I find only two Lake State cases, both of which recovered.

TABLE V.

AMPUTATION AT THE ELBOW JOINT.

OPERATOR.	REASON FOR OPERATION.	Complications	Time.	Result.	Practice.
Dr. E. Andrews	Mortification forearm after wound	None ...	Second'y	Recover.	Priv. pr.
Cook Co. Hosp.	Not stated.....	Not stat.	Primary	"	Hosp...
opr. not stated					

No conclusions can be drawn from so small a number.

The operation abroad seems equally rare, so that the entire literature of surgery does not furnish us the means of comparing primary, secondary and pathological cases. I find only the following records :

AUTHORITIES.	CASES.	DEATHS.
Pennsylvania Hospital.....	1	0
Dr. Herrgalt, Siege of Strasburg, 1870-71.....	2	2
Other reports in Franco-German War, Deutsch. Zeit. für Chirurgie, B. II, S. 105.....	11	6
Circular No. 6, Surg. Gen. U. S. Army.....	19	0
Statist. des Hôp. de Paris, 1861-2-3.....	4	2
Guy's Hosp. Reports.....	1	0
Leeds' Gen. Infirmary, Mr. Nunneley.....	20	1
Zurich Hosp., 1860-67, Arch. Klin. Chir., Bd. X., S. 891..	2	1
Deutsch. Zeit. für Chir., Bd. II., S. 380.....	1	1
Totals.....	61	13

Mortality, 21 per cent.

This gives fifteen per cent. better results than amputation of the arm, so that it would seem it should be preferred to the latter whenever the choice of location is offered.

OPINIONS OF AUTHORS AND CONCLUSIONS.

Expectant treatment of gunshot wounds of the elbow is to be advised only in the slightest cases. The statistics of the Med. and Surg. History of the War of the Rebellion, p. 829, part II, Surg. Vol., give 938 cases treated conservatively, with only 10 per cent. of deaths;

but a great number of these were trivial wounds, and not at all to be classed with those where a bullet had gone through the interior of the joint. I think that in the latter class expectant treatment would be the most dangerous of all procedures.

Amputation at the elbow was first done by Paré, and improved by Brasdor. It gave rise to great differences of opinion among eminent men.

Those opposing or discouraging it are Boyer, Richerand, J. Cloquet, T. J. Roux, (the latter very bitterly,) Chelius (Chelius' Surg., vol. III, p. 718), and Henry H. Smith (Smith's Surg., vol. II, p. 689).

On the other hand, we have in favor of it, Brasdor, Velpeau, Dupuytren, Malgaigne, Legouest, Hamilton, Gross, and Bryant.

Gross speaks of the operation in very high terms, both as to safety and excellence of the stump. (Gross' Syst. of Surg., vol. II, p. 1110.)

Bryant of England, also praises it in the highest terms. (Bryant's Surg., p. 953.)

It is evident that the weight of authority among living surgeons is decidedly in favor of the operation. It should not be substituted for excision, but when an amputation is inevitable, and there is room for a choice of location, the elbow is to be preferred to any point above it.

AMPUTATION OF THE FOREARM.

Owing to the success and safety of conservative treatment of the forearm, amputations of this segment are comparatively rare. I have obtained records of only 20 cases in the Lake States, which are here subjoined :

TABLE VI.
AMPUTATION OF THE FOREARM.

OPERATOR.	Age.	REASON FOR OPERATION.	COMPLICATIONS.	Operation.	Con- dition.	Time.	Result.	Time to d'h or y	Practice.
Dr. J. H. Hollister	33	Forearm crushed by cars	Intemperate			Primary	Recovered		Hosp.
" "	"	" " " "	"			"	"		"
" "	"	Gunshot wound of forearm.	"			"	"	2 mos.	"
E. Andrews	32	Injury by R. R.	None	Circular	Good	"	"	6 weeks.	Priv. pra.
" "	"	Gangrene of crushed hand.	"	"	"	Secondary	"	32 days.	Hosp.
" "	"	Injured by cars	"	"	Bad.	Primary	"	70	"
" "	70	Lupus or canceroid of hand and wrist.	None	"	"	"	"	"	Priv. pra.
J. H. Hollister	19	Wound of forearm by saw	"	"	Good	Primary	"	"	"
" "	20	Wrist severed by sharp instrument.	"	"	"	"	"	"	Hosp.
Cook Co. Hosp.		Disease of parts	"	"	"	"	"	"	"
Dr. H. Wardner	33	Hand crushed in foundry.	Considerable shock	Low. 3	Med.	Primary	Died	3 1/2 wks.	Priv. pra.
" "	30	" " " " on boat	"	Mid. 3	"	"	Recovered	3 mos.	"
E. D. Kittoe	52	Hand and forearm crushed in thresh. mach.	"	Low. 3	Bad.	18 hours	"	"	"
" "	56	Scirrhus of hand.	" Intem.	"	"	2 years.	"	"	"
E. W. Lee	8	Comp. fract. forearm.	Scirrhus of lip removed 3	Flap. 3	Good	Primary	"	3 weeks.	"
" "	40	Hand crushed	"	Low. 3	"	"	"	4	"
S. S. Bedal	25	Comp. and com. fract.	None	Cir. low 3	"	"	"	"	"
S. Marks	28	Hand crushed	"	Lower 3d	"	Secondary	"	3 weeks.	Hosp.
" "	50	Erysipelas and gangrene.	"	Upper 3d	Bad.	4 weeks.	Died	12 days	Priv. pra.

RECAPITULATION.

	CASES.	DEATHS.	PER CT. MORT.
Total number	20	2	10
Traumatic Primary	14	0	0
“ Secondary	2	0	0
Pathological	4	2	50
Hospital Cases	9	1	11
Private Practice	11	1	9

AMPUTATION OF THE FOREARM ABROAD.

The following are the principal published records of this operation :

TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II., p. 967	1,007	97
New York Hosp., reported by Sir J. Y. Simpson	10	2
Pennsylvania Hosp., “ “ “	83	5
Boston City Hosp., Dr. Cheever	9	0
Mass. Gen. Hosp., reported by Sir J. Y. Simpson	29	7
Guy's Hosp., London	16	1
St. Bartholomew's Hosp., London, 1853 to 1871	48	2
St. George's “ “	1	0
U. S. Marine Hosp.	1	0
Dr. Herrgalt, Strasburg, French and German War	4	0
Dr. Beck, Austrian and Prussian War	3	0
Leeds Gen. Infirmary, Mr. Nunneley	60	4
Siege of Antwerp, Schmidt's Jahrbücher, B. 136	6	1
Crimean War, “ “ “	175	35
German-French War, “ “ “	10	2
Dr. E. Warren's Surg., p. 396, Confederate Army	23	2
British Mil. Hosp. in Brussels, 1815, Guthrie	22	1
Totals,	1,507	159

Mortality, 11 per cent.

TRAUMATIC INTERMEDIARY.

AUTHORITIES.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II., p. 967,	450	106

Mortality, 23 per cent.

INTERMEDIARY AND SECONDARY CASES COMBINED.

AUTHORITIES.	CASES.	DEATHS.
Boston City Hosp., Dr. Cheever.....	2	0
New York " Works of Sir J. Y. Simpson.....	3	1
Pennsylvania " " " " ".....	11	4
Mass. Gen. " " " " ".....	12	2
Guy's " London.....	1	0
St. Thomas' " ".....	1	0
St. Bartholomew's Hosp., London, 1853-71.....	14	2
St. George's " ".....	1	0
Chinese Missionary ".....	1	0
Geissel in French and German War.....	5	0
Beck in Austrian and Prussian War.....	5	1
Crimean War, Schmidt's Jahrbücher, B. 136.....	96	56
German-French War, " " ".....	2	2
Dr. E. Warren's Surgery, p. 396, Confederate Army.....	22	4
British Mil. Hosp. in Brussels, 1815, Guthrie.....	17	5
Totals.....	193	77

Mortality, 40 per cent.

PURELY SECONDARY (AFTER INTERMEDIARY PERIOD).

AUTHORITY.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II, p. 967,	184	29

Mortality, 16 per cent.

PATHOLOGICAL CASES.

AUTHORITIES.	CASES.	DEATHS.
Boston City Hospital, Statement of Sir. J. Y. Simpson.....	6	2
New York Hospital, " " ".....	7	2
Pennsylvania " " " ".....	6	0
Mass. Gen. " " " ".....	27	4
Edinburg Infirmary, 1859-68.....	7	3
Glasgow " 1847-68.....	23	6
St. George's Hospital, London, 1864-68.....	8	4
Guy's " " 1861-68.....	13	5
London " " 1862-68.....	5	0
Middlesex " " 1867-68.....	1	1
King's College " " 1863-68.....	1	1
Royal Free " " 1862-68.....	1	1
Westminster " ".....	4	1
St. Thomas " ".....	2	0
St. Bartholomew's " 1853-71.....	18	1
Leeds Gen. Infirmary, Statem't of Mr. Nunneley.....	21	3
Billroth's Practice.....	4	2
Other European Cases.....	8	0
Totals.....	162	36

Mortality, 22 per cent.

GENERAL SUMMARY OF AMPUTATION OF THE FOREARM ABROAD.

	CASES.	DEATHS.	PER CENT. MORT.
Traumatic, primary	1,507	159	11
" intermediary	450	106	23
Intermediary and secondary combined	193	77	40
Purely secondary	184	29	16
Pathological	162	36	22
Totals	2,496	407	16

Mortality in the Lake States, 10 per cent.

It appears, therefore, that the mortality of this operation among us is less than two-thirds that of the published statistics.

OPINIONS OF AUTHORS AND CONCLUSIONS.

Authors have very little to say on the indications for amputation of the forearm, except to apply the following principles :

1. Conservative treatment is very safe.
2. The arteries and nerves pass down in several trunks, so that they are seldom all destroyed at once.
3. Artificial hands are of very little practical use.

Acting on these truths, surgeons rarely amputate the forearm, except for some injury which has already destroyed the life of the member, or some disease like cancer, which cannot be otherwise gotten rid of. In all severe compound fractures, gunshot wounds, etc., in which there is the least ground of hope that the circulation may recover itself, the effort is made to save the limb. Conservative treatment in the forearm and hand is carried to its fullest extent.

Legouest (*Chirurg. d'Armée*, p 350,) says, that when a bullet traverses the wrist in its greatest diameter, with great shattering, amputation of the forearm will be required,

AMPUTATIONS OF THE WRIST AND HAND IN THE LAKE STATES.

Of these, I find records of only eight cases, all of which recovered.

AMPUTATIONS AT THE WRIST JOINT—ABROAD.

TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II, p. 1018	54	5
Pennsylvania Hospital	8	0
Dr. Herrgalt, in Strasburg	2	0
Leeds General Infirmary, Mr. Nunneley	102	8
Siege of Antwerp, Schmidt's Jahrbücher, p. 156	1	1
Totals	167	14

Mortality, 8 per cent.

TRAUMATIC INTERMEDIARY.

AUTHORITY.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II, p. 1018,	7	1

Mortality, 14 per cent.

PURELY SECONDARY (AFTER INTERMEDIARY PERIOD).

AUTHORITY.	CASES.	DEATHS.
Med. & Surg. Hist. War of Rebel., Surg. Vol., Part II, p. 1018,	5	1

Mortality, 20 per cent.

TRAUMATIC, TIME NOT STATED.

AUTHORITIES.	CASES.	DEATHS.
German Authors	2	1
U. S. Marine Hospital	1	0
Crimean War, Schmidt's Jahrbücher, p. 156	67	27
Italian War, " " " "	13	6
German-French War, Schmidt's " " " "	8	0
Totals	91	34

Mortality, 37 per cent.

This increased mortality, as compared with that of the cases known to be primary, may be due to the fact that

the second list is mainly made up of military cases, many of which had other injuries to determine a fatal result, yet it seems impossible to make any satisfactory solution of such palpable discrepancies.

PATHOLOGICAL CASES.

Cases, 14.

Deaths, 1.

Mortality, 7 per cent.

GENERAL SUMMARY OF AMPUTATIONS OF THE WRIST.

LAKE STATES.

Eight cases. No deaths.

ABROAD.

	CASES.	DEATHS.	PER CENT. MORT.
Primary	167	14	8
Intermediary	7	1	14
Purely secondary	5	1	20
Time not stated	91	34	37
Pathological	14	1	7
Totals,	284	51	18

OPINIONS OF AUTHORS.

Legouest and Albert Malinas, in a work entitled "Conservation," etc., advise conservative treatment in gunshot fractures of the wrist, and, in support of their opinion, give the following facts, on gunshot wounds of this articulation :

	MORTALITY OF CONSERVATIVE TREATMENT.	MORTALITY OF AMPUTATION.
Crimean War	11	28
Italian War	18	25 to 46

Legouest says (*Chirurgie d'Armée*, p. 530) that amputation at the wrist is only required when the injury to the hand is such as to destroy the hope of any future use of it.

Joseph Lister, in Holmes' System of Surgery, vol. V., p. 655, rather discourages the operation, and thinks it no better than amputation of the forearm.

Gross, on the other hand, in his System of Surgery, vol. II., p. 1108, thinks it preferable by far to amputation of the forearm.

Erichsen says it is not often required.

Ashurst's Surgery, p. 115, says if it is done, the disarticulation should be at the radio-carpal junction.

Vidal (Pathologie Externe, Tome V., p. 646) approves the operation in suitable cases.

It appears, therefore, that authors conflict somewhat in their opinions of the operation, without any decisive scientific proof on either side. The statistics too are in hopeless contradiction. The Crimean war is said to have given a mortality of 28 per cent.; the Italian war is stated variously from 13 to 46 per cent., and the late American war at only 5 per cent. No results can be deduced from such utterly irreconcilable statements. Science must wait for a better collection of facts.'

AMPUTATIONS THROUGH THE METACARPUS.

No records for the Lake States. Abroad, seventy-six cases are recorded without a death.

AMPUTATION AT THE HIP JOINT.

Of this important operation I obtain records of the following seven cases in the Lake States:

TABLE VII.
AMPUTATION OF THE H¹ P JOINT.

OPERATOR.	Age.	REASON OF THE OPERATION.	COMPLICATIONS.	Opera- tion.	Condi- tion.	Time.	Result.	Time to dth.	Pre- dice.	Causes of death—remarks.
E. Powell.....	45	Carries of hip and inflammation of knee	Phthisis pulmonalis	Flap	Bad	.....	Recove.	.....	Hosp.	Died 10 m. after of phthisis
".....	17	Recurrence of cancer in stump of thigh	Great shock	.....	Med.	.....	"	.....	Hosp.	.....
Ammerman ..	16	Necrosis of entire femur	Emaciation, hectic	Flap	Bad	12 hours	Died	.....	.....	Exhaustion
D. Brauhard ..	.....	Enchondroma of femur	.....	.....	.....	3 mos.	Recove.	.....	.....	.....
".....	.....	Recurrence cancer removed from thigh	.....	.....	.....	.....	Died	.....	.....	.....
M. Waterhouse	40	Recurrence cancer removed from thigh	.....	.....	.....	.....	.....	.....	.....	.....
Sank Co. Wis.	.....	Both thighs crushed by R. R.	Note	Hip a. 3	.....	Primary	.....	4 days	Priv. p.	Exhaustion
				op. th.				12 h.		Shock

RECAPITULATION.

Total number of cases	7	Died.....	3
Traumatic	2	"	1
Pathological	5	"	2

AMPUTATION OF THE HIP JOINT ABROAD.

The Surgeon-General of the U. S. Army, in Circular No. 2, publishes a report of Asst. Surg. Geo. A. Otis, M. D., which carefully collects the published cases of the world up to 1869 (Cir. No. 2, S. G. O.), so far as performed for gunshot wounds. Of these, 115 were in the Crimean and other foreign wars; 62 were in the American war, and 6 were later cases. Asst. Surg. Otis gives in Circular No. 2, p. 112, the following condensation of the whole:

AMPUTATIONS AT THE HIP JOINT FOR GUNSHOT WOUNDS ABROAD.

	CASES.	DIED.	PER CENT. MORTALITY.
Primary (finished cases)	76	75	99
Intermediary	76	70	92
Secondary (after intermediary)	20	13	65
Re-amputations	8	4	50
Totals	180	162	90

The New York, Boston and Mass. general hospitals give five traumatic primary cases, all fatal.

AMPUTATION AT THE HIP JOINT FOR PATHOLOGICAL CAUSES.

AUTHORITIES.	CASES.	DIED.
Lake State Surgeons (see table No. VII. above)	5	2
Guy's Hosp. Reports	1	1
St. Thomas' Hosp. Reports	2	0
St. Bartholomew's Hosp., 1853 to 1863, Mr. Callender.....	1	0
Statist des Hôpit. de Paris, 1861-2-3	3	3
Mass. Gen. Hosp.	2	2
Leed's Gen. Infirmary, Mr. Nunneley	2	1
Ashurst's Surgery, p. 131	42	18
Totals	58	27

Mortality in pathological cases, 47 per cent.

OPINIONS OF AUTHORS AND CONCLUSIONS.

Opinions on this amputation have formerly been widely conflicting, but as statistics have accumulated and thrown light on its results, a greater degree of unanimity has been attained.

In 1740, the Academy of Surgery in Paris opposed the operation, when one of its members wished to perform it. In 1848 they approved it. In 1859 they again discussed it, and of forty-four opinions, thirty-four justified it. (*Pathologie Externe par Vidal, Tome V., p. 703.*)

Chelius, vol. III., p. 689, justifies it when a crushing or mortification extends so high as to prohibit amputation below the trochanter.

Stromeyer (*Maximen der Kriegsheilkunst*) declared in 1861 that it was not yet proved justifiable in military surgery.

Loeffler (*Grundsätze und Regehr für die Behandlung der Schusswunden im Kriege*) took similar ground. Rochard, in Saurel's *Traité de Chirurgie Navale*, pronounced it improper in the primary stage, and Sedillot maintained for years that the primary amputation was never successful.

Baron H. Larrey and M. Legouest (*Memoires de la Societé de Chirurgie, Tome V.*) obtained a definite opinion from the Society of Surgery, that the operation was unjustifiable unless the thigh was almost torn away from the trunk.

Erichsen's Surgery, vol. II., p. 301, seems to speak rather flippantly and without consideration of the terrible danger of the operation. It advocates it, not only where the disease of the femur is too extensive for excision, but even for limbs rendered simply useless by atrophy, deformity, etc. Curiously enough, in disregard of the fact that amputation is more dangerous than excision, the author recommends it as a choice, where the health is supposed to be too low to bear the excision.

Joseph Lister, in Holmes' System of Surgery, vol. V., p. 651, says it is justifiable in some desperate circumstances.

Henry H. Smith (Prin. and Pract. of Surg., vol. II., p. 694,) assumes that it may be required, and forbids the circular operation as specially objectionable.

Gross (System of Surgery, vol. II., p. 1127,) says, amputa-

tion at the hip is never to be undertaken except where there is no other chance of life.

Asst. Surg. Geo. A. Otis, M. D., the author of Circular No. 2, S. G. O., after a careful survey of the war records, and of European opinions and military experience, arrives for gunshot cases at the following conclusions (Cir. No. 2, pp. 122, 123):

"Amputation at the hip joint, for gunshot injury, notwithstanding its great fatality, cannot be altogether discarded, and should be performed under the following circumstances: 1. When the thigh is torn off, or the upper extremity of the femur comminuted with great laceration of the soft parts, in such proximity to the trunk that amputation in the continuity is impracticable. 2. When a fracture of the head, neck or trochanter of the femur is complicated with wound of the femoral vessels. 3. When a gunshot fracture, involving the hip joint, is complicated by a severe compound fracture of the limb lower down, or by a wound of the knee joint.

"There are two other possible contingencies under which primary or early intermediate coxofemoral amputations for injury may be admissible: 1. When, without fracture, a ball divides the femoral artery and vein near the crural arch. 2. When a gunshot fracture in the trochanteric region is complicated by such extensive longitudinal fissuring as to preclude excision. Experience has yet determined nothing on these points. Secondary amputations and re-amputations at the hip, in military surgery, should be performed when, from caries, or necrosis, or chronic osteomyelitis following gunshot wounds, or amputations in the continuity, the patient's life is in jeopardy.

"Restricted to the classes of cases above enumerated, coxofemoral amputation will occasionally save lives that would otherwise be inevitably lost.

"Primary excisions of the head or upper extremity of the femur, should be performed in all uncomplicated cases of gunshot fracture of the head or neck. Intermediate excisions are indicated in similar cases where the diagnosis is not made out till late, and also in cases of gunshot fracture of the trochanters with consecutive arthritis. Secondary excisions are

demanded by caries of the head of the femur, or secondary involvement of the joints, resulting from fractures in the trochanteric region or wounds of the soft parts in the immediate vicinity of the joint.

"Expectant treatment is to be condemned in all cases in which the diagnosis of direct injury to the articulation can be clearly established.

"Although the great majority of cases complicated by lesions of the pelvis terminate fatally, the successful operation of Dr. Schönborn proves that a slight injury of the margin of the acetabulum does not contra-indicate the operation of excision.

"Experience teaches that considerable portions of the shaft may be with propriety removed with the head, neck and trochanters, in cases in which splintering extends below the trochanter minor."

In the light of all the known facts, I think that these remarks of Dr. Otis are the best considered, and most carefully stated conclusions ever made, up to the time they were penned, and that to a certain extent they are applicable to other traumatic cases.

Since they were written, however, the whole system of treating wounded joints by antiseptic methods has been developed, and the question has arisen whether a certain number of shattered hips heretofore deemed to require amputation or excision would be better treated by laying open the joint freely, removing dead fragments, and treating by Lister's antiseptic methods. Probably they would, but science has not yet given the means of a positive answer, so that a painful darkness still hangs over some portions of the subject of hip joint injuries. The antiseptic consideration, however, would affect the question of excision more than that of amputation, as at the present time few would think of amputating at the hip for recent injuries, unless the limb were destroyed, or gangrene inevitable, and therefor antiseptic treatment out of the question.

There is yet one other condition in which antiseptic method might possibly come in to postpone or supersede amputation in a few rare cases. If the limb is carried away by a shot, too high for amputation below the trochanter, it has been deemed

unavoidable that the patient must take the added terrible shock of a primary amputation at the hip, though his chance of surviving it is not over one in a hundred. The antiseptic method enables us in most cases to promptly subdue the local inflammation, and to completely suppress the exhausting drainage of suppuration, so that some of these cases might probably be better treated by this plan, and thus either healing the parts by granulation without operation, or else postponing the amputation to a late secondary period, when it is much safer. This principle has proved abundantly successful in some parts of the body, but there is no recorded experience of its application to hip joint wounds.

The principal pathological indication for this amputation has hitherto been cancer of the thigh, so situated as to admit of complete removal in no other way. Some instances are on record where it has been successfully done and the patient lived in comfort for years, though perhaps there may be doubt about the correctness of the diagnosis in a part of them. The whole thing lies in a nutshell. If the tumor is really malignant, there is no reasonable expectation of a permanent cure, and as pathological amputations have a mortality of 47 per cent., they have about one chance in two of killing the patient at once. The question therefore is this: Granted that there is no rational expectation of a permanent cure, and only a moderate hope of prolonging the life, is an operation, which kills immediately one-half the patients, desirable? It is evident that the prospect is greater for shortening than for lengthening the life by the operation, in such circumstances. It would seem to be justified, therefore, only in those cases where the terrible pains of the disease call for operative relief, at almost any risk.

Caries extending far down the femur, can hardly be called an indication for amputation at the hip, now that we understand the value of subperiosteal excision of bony shafts.

(To be Continued.)

RIGIDITY OF THE OS UTERI OVERCOME IN
OBSTETRIC PRACTICE.

A SUBSCRIBER, LAKE CITY, MINN.

I was deeply interested in an able article from the pen of Philip Adolphus, M. D., in the April number of THE CHICAGO MEDICAL JOURNAL AND EXAMINER, on the "Relative position of Chloroform, Sulphuric Ether and Sulphate of Morphia in Obstetric Practice."

For eleven years, obstetrics and diseases of women have been almost a specialty in my practice; and for the past two years I have entirely discontinued the use of chloroform, with one exceptional case, considering chloral hydrate in every way preferable. Taken in combination with Doveri pulv., or liq. Doveri, I have overcome the (apparently) most obstinate cases of rigidity of the os uteri.

The exceptional case, in which I tried to administer chloroform, was that of a lady twenty-seven years of age pregnant with her third child. The husband came in great haste, saying his wife was flowing to death, and was delirious, with incessant pain. I had attended the lady in both her previous confinements, and she had no unusual amount of suffering nor abnormal symptoms. At this time, I found her delirious and in irregular spasms. Attempted the administration of chloroform, but owing to the dusky appearance of the countenance, and impeded respiration, had to desist. On digital examination, found os uteri rigid and dilated, but sufficient to admit tip of index finger. With every pain, which was as often as three, and two and a half minutes, was a profuse gush of blood. Gave $\mathfrak{z}$ j of Squibb's fld. ex. ergota, chloral hydr. grs. x. In fifteen minutes the pains were less convulsive and frequent, and flow greatly moderated. But the rigidity of os remaining the same, and pains occurring every five minutes, with no perceptible increase of dilation, gave Dover's pulv. in connection with chloral hydr. I have *never* failed, in using this remedy, and think it preferable to morphia, as consciousness and sensibility are not destroyed, and it has the relaxing

properties of the ipecac. After giving two doses of the following formula: chloral hydrate, $\mathfrak{z}\text{ j}$; liq. Doveri, $\mathfrak{z}\text{ jss}$; syr. cinn. $\mathfrak{z}\text{ j}$; M. sig. a teaspoonful, at intervals of thirty minutes, the attendants ceased controlling the lady's movements and she broke out into a profuse perspiration, at the same time quietly sleeping between the pains. In one hour, gave the third and last dose (I rarely give over two). In twenty minutes following, after a pain from which she indifferently roused, she said, "*there, Dr.*" I slipped my hand under the sheet and found on the bed a five and a half month's fetus, with membranes entire and unruptured, and lady had not changed her position, and continued to sleep sweetly. She made a good recovery; had abundance of milk without any febrile symptoms.

In former years, found ipecac pulv. grs. ij. every twenty minutes good in relaxing the rigidity of os uteri, especially in primipara labors; but it failed in allaying the irritability and extreme restlessness attending such cases. Even when administered with chloral hydrate, it has not the happy effect that Dover's powder has. For convenience the liq. Doveri (m. j, being equal to gr. j pulv.) is be preferred. Where there are no spasmodic symptoms, the Dover's powder is sufficient *without the chloral*, and I prefer to use it so; and in using it have no occasion for ergota except to control hemorrhage, *i. e.* in uncomplicated rigidity of os uterus. If pains are *inefficient* I substitute quinia for ergota. And in using the chloral hydr. and liq. Doveri combined, have not needed instrumental assistance, on an average once in five hundred cases—in fact, never with a normal pelvis.

Was called to a primipara labor, as was supposed. Lady in spasms, face contorted and tongue filling the mouth, which was partly open and drawn to one side. Administered $\mathfrak{z}\text{ ij}$ of pres. per rectum. Examined and found os rigid with no dilation perceptible. In twenty minutes the lady called for a drink of water, and seeing me, said, "Dr., am I going to be sick?" I inquired as to pain—she had had no pain, bowels free, appetite good, but could not sleep. Ordered the prescription every four hours, with warm foot bath. She continued the medicine for seven days, saying, "As long as I take the medi-

cine I am all right, but if I go over the four hours the spells come on." At the expiration of seven days was sent for—she met me smiling, and said, "I feel some pain, but not very bad, in my back." In one hour she was delivered of a fine boy, average weight, and her first expression was, "I was not *much* sick after all." Continued the medicine three days—made a good recovery.

It is unnecessary to relate instances, but the fact is before me all the time, not only in parturition, but in my office practice, for the advantages of exploration, removal of polypi or other uterine tumors, the relaxing and sustaining properties of Dover's powder, with or without chloral hydr., as the case requires, are almost indispensable. It does not interfere with the appetite, and seldom with digestion, and its relaxing properties extend to the sphincter vaginae, and with the usual support *I never have had a lacerated perinæum*. And there is no excitement, congestion nor increased circulation, but labor is made endurable, shorter, safer and more satisfactory. After-pains are controlled, and no complications of inflammations or lacerations as a sequel. Idiosyncrasy precluding opium, or morphia, will accept gratefully DOVER'S POWDER.

CASE OF MONSTROSITY.

By DR. C. PAUL SIMON, CHICAGO.

(Reported to the Chicago Society of Physicians and Surgeons.)

This monstrosity, which I saw with Dr. Landis, sen., of this city, was born illegitimately during the month of April of the present year, in North Chicago, of a woman aged twenty, of German origin, in the seventh month of pregnancy. It belongs to the class of double monsters (*Monstres Doubles autositaires*, of *Isid. Geoffroy, St. Hilaire*) having a common cord and connected by means of the abdominal walls, and may be called *omphalopagus abdominalis*. Both were females, facing each other, and apparently of the same development. The connection equalled in thickness the width of the body,

and extended from the processus xiphoideus to within a few inches above the pubis, where the cord was attached on one side. The one died shortly after birth, but other lived for about thirty-six hours, her bowels moving in the meantime. A difference of temperature could be detected with the hand immediately on both sides of what should be the common linea alba. No trial of division, and later no examination after death, were allowed.

This case is analogous to that of the Siamese twins, where the cord was common and the connection occurred at the place of the processus xiphoideus. (See Transactions of the College of Physicians of Philadelphia, Phil., 1875.)

EDITORS OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER:

In your June number, in the report of Dr. Danforth on the Pathological Anatomy and Histology of Cholera, he speaks of "Dr. McClellan coolly ignoring the work of the Society of Physicians and Surgeons, and crediting the investigations to the Chicago Board Health."

As this places Dr. McClellan, as well as myself, in a false position, I desire to state the circumstances as they occurred.

During the epidemic of 1873 Dr. Simons was appointed Assistant Sanitary Inspector, with instructions to investigate fully the causes of the disease, and to make *post mortem* examination of all cases, when one could be obtained, as I desired to have an examination made of the specimens obtained. He was directed to do this as an employee of this Department, and not as a member of the committee. When the *post mortems* were made, he informed me that he had invited Dr. Hyde to be present, and he had conducted the examinations and had the specimens in his possession.

I then saw Dr. Danforth and requested him to make an examination, and report the same for publication in the report of the Board of Health. The Department paying all expenses connected with the examination, and retaining all the plates;

and furnishing Dr. Danforth with a number of bound copies of his report for distribution.

When Dr. McClellan was here he spoke to Dr. Danforth in my presence, in regard to inserting his report, as published in the Board of Health Report, in the work on cholera; stating that he would give Dr. Danforth credit for the same, and that this would give a larger audience than publishing the same in the MEDICAL JOURNAL.* To this Dr. Danforth assented, and if he had desired, one word from him would have given the Society all the credit that has been given to Dr. Danforth. It is true the Board of Health did not order any *post mortems*; but, as the executive officer of the Board, I did; and, in inviting Dr. Hyde to be present, Dr. Simons was acting in his official capacity, and permitted Dr. Hyde to do what he had been ordered to do. I was gratified when I learned that Dr. Hyde was present and took charge of the examinations, but did not approve of Dr. Simons' permitting him to take the specimens away with him, for by this it would appear that his first duty was to the Society, and not to the Department that was paying him for this service.

In the report of the Board of Health, which contains the report of Dr. Danforth (pages 30 to 44), due credit was given to Dr. Danforth, also to Dr. Hyde for making the *post mortems*.

If Dr. Danforth had desired the Society to have the credit instead of himself, he had access to the proofs and corrected them, why did he not made the change then? I think it illy becomes him, at this late day, to arraign Dr. McClellan for not accrediting the Society of Physicians and Surgeon with the investigations, and stating that the Board of Health had not the slightest connection with the inauguration or prosecution of these researches, and that it was done wholly under

* Dr. McClellan writes me as follows: "Dr. Danforth stated to me that the notes had been carelessly written, that he was not satisfied with them, that he would go over the entire ground, rewrite the paper and send it to me. Although I wrote him several times on the subject, and many times wrote you to see him about it, I never received one line from him or from anyone else."

the auspices of the Society of Physicians and Surgeons; when the Health Department was in constant communication with him, and paid all bills connected with the examination, and now have possession of all the plates.

Further, it illy becomes him to bring Dr. McClellan into this, when he kept the report out of the JOURNAL, and permitted Dr. McClellan to take it, not as a report of the Society, but as his report, because it would give him the greater audience.

I thank Dr. Hyde for his examinations, for they were made thoroughly; although Dr. Simons had been ordered to do the same work; and if in the Health Report Dr. Hyde has been neglected in any way I am ready to make the amende honorable. But Dr. Danforth is rather late in raking up old scores. At that time the only objection he made was that I gave him the plain title of "Dr. I. N. Danforth," and did not append his title of "Lecturer in Rush Medical College."

In conclusion permit me to say that if Dr. McClellan has done the Society any injustice, it was from want of information; seeing the report published in the Report of the Board of Health, he would naturally infer that it belonged to that Board.

While I am ready and willing to grant all the credit due to the Society, I do protest against Dr. Danforth's view of the case; for if ordering the examinations and paying for them is not having some connection with them, then publishing the report in ours, accredited to him, does not give us any connection with it.

Respectfully Yours,

BEN C. MILLER, *Sanitary Sup't.*

Reports of Societies.

EIGHTH ANNUAL MEETING OF THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.

(F. H. DAVIS, Secretary.)

The members of the Association assembled in the parlor of the Centennial Hotel, in Philadelphia, on Monday, May 5, 1876.

The meeting was called to order by the president, Dr. A. N. Bell, of New York. The following members were present: Drs. Theophilus Parvin, of Ind.; Leartus Connor, of Detroit; A. C. Garrett, of Boston; Robt. Battey, of Atlanta; H. Z. Gill, of St. Louis; W. H. Byford, of Chicago; H. C. Wood, of Philadelphia; L. D. Bulkley, of New York; D. G. Brinton, of Philadelphia; W. T. Briggs, of Nashville; Thos. S. Powell, of Southern Medical Record, and A. N. Bell, of Brooklyn.

The secretary, Dr. F. H. Davis, of Chicago, read the minutes of previous meeting, which were accepted and approved. The president then delivered the annual address; this was devoted mainly to an able and eloquent appeal for a higher standard of requirement for admission to the profession of medicine in this country. The facilities offered by most of our medical colleges were abundant; but the time of attendance required of the student, two terms, of four to six months each, was absurdly insufficient to enable him to intelligently profit by the advantages offered. Dr. H. C. Wood fully endorsed the views advanced in the president's address. In the early days of medical instruction in this country the colleges attempted to teach only the fundamental branches, and those they taught well and thoroughly. Now the schools attempt to cover the whole vast field of modern medical sciences, including the various specialties, and still expect the student to comprehend all of this in the old four or six months session. The result was that the graduates of to-day went out with a superficial smattering of all, but really

thoroughly grounded in no one department. He believed in supporting Harvard and such schools as had the courage to come bodily forward and institute the reforms of a three year's graded course; uphold these institutions until their success should compel the others to follow.

Dr. Byford counseled moderation. He thought that most of the colleges were doing very well, as well as they could. Give them time enough and they would accomplish all the needed reforms. In reference to the deficiency of preliminary education on the part of medical students, he thought that the practitioners who sent these imperfectly prepared students to the colleges, were in the main responsible. Let the colleges have better material and they would turn out better educated physicians.

Dr. Palmer stated that in introducing this requirement of preliminary examination into Michigan University, they had found it necessary to reject several applicants. The preceptors of these gentlemen were very much offended, and the students easily gained admission at other schools where no such preliminary acquirements were necessary.

The question of State laws regulating the practice of medicine was discussed at some length by several members. Dr. Connor, of Detroit, said that he had taken opportunity to examine somewhat carefully the effects of the laws now in force in Canada, which require each practitioner of medicine to pass examination by a mixed board, containing representatives of the different schools of medicine, homœopathic, eclectic, etc. The result, he stated, had been that those districts were overrun with a class of unprincipled quacks and charlatans who possessed sufficient knowledge to pass the examining board, and were thus licensed to practice, and could compel recognition and admission to all medical societies, while they were under no moral or ethical restraints. Their advertisements and posters were to be seen on every lamp-post and fence corner throughout the country.

It was agreed by the members of the Association generally that the profession must establish and maintain its own requirements for admission to its ranks, and its own ethics;

also that some standard of acquirement, other than the possession of a simple college diploma, should be required for admission to the State Medical Societies and the American Medical Association.

The following resolution was offered and unanimously adopted:

Resolved, That we express our approval of such medical schools as require preliminary examinations and a three year's graded course of instruction, with stated examinations.

The Association then proceeded to the election of officers, with the following result: President, Dr. H. C. Wood, of Philadelphia; permanent secretary, Dr. F. H. Davis, of Chicago.

The meeting then adjourned to the evening preceding the next annual meeting of the American Medical Association.

PROCEEDINGS OF THE ASSOCIATION OF THE REPRESENTATIVES OF AMERICAN MEDICAL COLLEGES, HELD
AT PHILADELPHIA, JUNE 2 AND 3, 1876.

A convention of representative of numerous medical colleges of the United States was held in the hall of the Jefferson Medical College, of Philadelphia, June 2 and 3, 1876, in pursuance of the following call:

LOUISVILLE, KY., May 15, 1876.

Following a general correspondence with the various medical colleges of the United States, the undersigned issue this call for a convention, to be held in Philadelphia, on Friday, June 2, 1876, four days in advance of the meeting of the American Medical Association. The object of the convention is to consider all matters relating to reform in medical college work.

That decided results may be reached, the faculty of each college is requested to send one or more delegates, clothed with *plenary* powers to determine final action on every question.

Should any college find it impracticable to send a representative, it is hoped that it will set forth fully, by letter to the

convention, the views it may hold touching the suppression of existing evils and methods of practical improvement.

Officers of the following colleges have informally signified their hearty approval of the movement:

Jefferson Medical College, College of Physicians and Surgeons, N. Y., Bellevue Hospital Medical College, Ohio Medical College, Miami Medical College, Rush Medical College, Detroit Medical College, Louisville Hospital Medical College, Medical Department of University of Louisville, St. Louis Medical College, Keokuk Medical College, Cleveland Medical College, Starling Medical College, Medical Department of Georgetown College, Medical Department of Columbian University, Long Island College Hospital, Medical Department of Syracuse University, Evansville Medical College, Indiana Medical College, Medical Department of University of Nashville, Atlanta Medical College, Mobile Medical College, Savannah Medical College, Augusta Medical College.

The convention will be called to order in the hall of the Jefferson Medical College, at eleven o'clock A. M., on the day above named.

J. B. BIDDLE, M. D., Jefferson Medical College.

WM. H. MUSSEY, M. D., Miami Medical College.

JOHN T. HODGEN, M. D., St. Louis Medical College.

J. ADAMS ALLEN, M. D., Rush Medical College.

W. T. BRIGGS, M. D., Med. Dep't Univ'ty of Nashville.

J. M. BODINE, M. D., Med. Dep't Univ'ty of Louisville.

At the hour named the following representatives assembled:

Jefferson Medical College—Prof. J. B. Biddle and Prof. S. D. Gross.

Medical Department University of Pennsylvania—Prof. R. E. Rogers.

College Physicians and Surgeons of New York—Prof. Edward Curtis.

Medical Department University of Louisville—Prof. L. P. Yandell, Jr., and Prof. J. M. Bodine.

Hospital College of Medicine of Louisville—Prof. J. A. Larrabee and Prof. T. C. Wilson.

Long Island Hospital Medical College—Prof. J. H. Raymond.

Medical Department University of Iowa—Prof. E. Clapp.

College of Physicians and Surgeons, Syracuse University—Prof. H. B. Wilbur and Prof. Van Dyne.

Chicago Medical College—Prof. L. Curtis.

Medical Department University of Georgia—Prof. E. Geddings.

Indiana Medical College—Prof. T. B. Harvey and Prof. L. D. Waterman.

Medical Department University of Wooster—Prof. W. J. Scott.

Cleveland Medical College—Prof. J. H. Bennett and Prof. Heims.

Detroit Medical College—Prof. E. W. Jenks and Prof. L. Connor.

Starling Medical College—Prof. S. Loving.

Medical Department University of Vermont—Prof. H. D. Holton.

St. Louis Medical College—Prof. J. L. B. Alleyne.

Atlanta Medical College—Prof. W. F. Westmoreland.

Medical Department University of Nashville—Prof. W. T. Briggs.

Medical Department Vanderbilt University—Prof. T. A. Atchison.

Missouri Medical College—Prof. A. P. Lankford.

Keokuk College Physicians and Surgeons—Prof. J. J. M. Angier.

Columbus Medical College—Prof. J. F. Baldwin.

On motion of Prof. Yandell, Prof. J. B. Biddle was elected president of the convention, and on motion of Prof. Bennett, Prof. Leartus Connor was elected secretary.

On motion of Prof. E. Curtis, it was

Resolved, That the action of the convention shall not be considered binding upon the colleges represented unless endorsed by their respective faculties.

On motion of Prof. Gross, it was

Resolved, That a committee be appointed to submit business for the consideration of the convention, to report at the afternoon session.

The chair appointed as this committee, Profs. Bodine, Gross, Geddings, Holton and Scott.

The convention adjourned until four P. M.

Pursuant to adjournment the convention re-assembled at four p. m., the president in the chair.

The minutes of the last meeting were read and approved.

Prof. Bodine, from the committee to prepare business for the convention, reported the following questions for its consideration:

1st. Shall the beneficiary system, with its present abuses, be condemned or endorsed?

After discussion, on motion of Prof. E. Curtis, the following preamble and resolutions were adopted with reference to question first:

WHEREAS, The practice of reducing or remitting in individual cases the established fees of a college has the objectionable feature of discriminating between students who may be equally deserving, and opening the door to possible gross abuses; therefore

Resolved, first. That this convention regards the above privilege as one to be deprecated in general, and, if put into practice at all, to be exercised both rarely and reluctantly, and only in unusual circumstances, and after unsolicited application by proven deserving candidates.

Resolved, second, That anything like a wholesale system of such reduction or remission of established fees, or any open solicitation of recipients of such favors be regarded as in the highest degree improper, and that any college indulging in such practices deserves to forfeit its place on the *ad eundem* list of medical colleges.

2d. Shall two consecutive courses of lectures in one year entitle students to become candidates for graduation?

On motion of Prof. E. Curtis, it was

Resolved, That it is the opinion of this convention that no two consecutive sets of lecture tickets shall be regarded as fulfilling the usual prerequisites of instruction for graduation, where the time between the beginning of the first course and the end of the second is less than fifteen months.

3d. Shall any faculty under any circumstances issue a diploma not bearing the graduate's name?

On motion of Prof. Waterman, it was

Resolved, That no medical faculty should issue a diploma not bearing the graduate's name.

It was ordered that the meetings of the convention shall be at ten A. M. and four P. M. On motion the convention adjourned.

The convention reassembled on Saturday, June 3, at ten A. M., the president in the chair.

The minutes of the previous meeting were read and approved.

On motion of Prof. L. P. Yandell, Jr., the regular order of business was suspended, and communications were read from the faculties of the following medical colleges: Louisville Medical College, Kentucky School of Medicine, Evansville Medical College, Rush Medical College, Medical Department University Louisiana, Medical School of Harvard University, Savannah Medical College, Cincinnati College of Medicine and Surgery, Medical College of State of South Carolina.

On motion of Prof. Atchison, these communications were placed on file.

4th. Shall this convention resolve itself into a permanent organization?

On motion of Prof. Atchison, it was

Resolved, That the question be referred to a committee of five, to report at the afternoon session.

The chair appointed as this committee Profs. Atchison, L. Curtis, E. Curtis, Yandell and Scott.

On motion of Prof. Rogers, the president and secretary of the convention and Prof. Atchison were appointed a committee on publication.

5th. Is there any reason why the customary diploma fee shall be abolished?

On motion of Prof. Rogers, it was

Resolved, That it is the sense of the convention that the diploma fee should not be abolished?

6th. Is it advisable to adopt a graded course of study?

On motion of Prof. Bodine, the following preamble and resolution were adopted in reference to this question.

WHEREAS, A knowledge of the elementary branches of medicine should precede a study of the practical branches,

Resolved, That, in the hope of inducing students to prolong and systematize their studies, this convention recommends to all medical colleges to offer to students the option of three courses of lectures, after a plan similar to the following: Students who have attended two full courses of lectures on anatomy, chemistry, materia medica and physiology, may be examined upon any of these subjects at the end of their second course. During their third course such students may devote themselves to the lectures upon the theory and practice of medicine, surgery, obstetrics and diseases of women and children, upon which subjects only they shall be examined at the final examination for the degree of M. D.—their standing however to be determined by the results of both examinations.

On motion, adjourned till four p. m.

The convention re-assembled at four p. m., the president in the chair.

The minutes of the last meeting were read and approved.

Prof. Atchison, from the committee to whom the subject of permanent organization was referred, reported the following resolutions:

Resolved, first, That this convention now proceed to form a Provisional Association of American Medical Colleges, under its present officers.

Resolved, second, That when the Association adjourns, it shall adjourn to meet at the call of its president.

Resolved, third, That the various medical colleges be invited to take into consideration the project of forming, at the next meeting of this Provisional Association, a Permanent Association of American Medical Colleges.

Resolved, fourth, That for the furtherance of this object a committee of three be appointed at this meeting to confer by letter with the various colleges, and invite their views on the proper object and plan of such proposed organization; and upon the receipt of the same, to draft a constitution and by-laws for a Permanent Association, to be submitted at the next meeting of this Association.

Resolved, fifth, That the advisory resolutions upon matters of college policy passed by this convention be printed and forwarded to all regular medical colleges in the United States for their consideration.

The chair appointed as committee to carry out the foregoing

resolutions Prof. T. A. Atchison, Prof. Edward Curtis and Prof. L. P. Yandell, Jr.

These resolutions were adopted, and the convention resolved itself into the Provisional Association of American Medical Colleges.

7th. Is it proper for a regular college to have any kind of alliance with homœopathy?

On motion of Prof. Atchison, it was unanimously

Resolved, That in the opinion of this Association, medical colleges ought not to recognize or hold fellowship with any school or its alumni in which irregular medicine is taught as a part of the curriculum.

8th. Can college fees be made uniform?

On motion of Prof. Geddings, this question was referred to a committee of five, to report at the meeting of the Association to be held in 1877.

The chair appointed Profs. Geddings, Gross, Angier, E. Curtis and L. Curtis, this committee.

On motion of Prof. Biddle the following resolution was unanimously adopted:

No degree in medicine should be conferred under any circumstances, except after an examination in person of the candidate upon all the branches of medicine.

On motion of Prof. Atchison, the thanks of the Association were tendered to the president for the able and impartial manner in which he had discharged the duties of the chair.

On motion of Prof. Yandell, the thanks of the Association were tendered to the secretary for his efficient services.

On motion of Prof. Larrabee, the thanks of the Association were tendered to Jefferson Medical College for the use of the hall, and other courtesies.

On motion, the Association adjourned to meet at the call of the president.

J. B. BIDDLE, M. D. *President*.

LEARTUS CONNOR, M. D., *Secretary*.

CHICAGO SOCIETY OF PHYSICIANS AND SURGEONS.

April 24, 1876.

The following paper was read by Dr. Hyde, on the use of salicylic acid in inflammatory rheumatism:

CASE I. POLYARTHRITIS RHEUMATICA.

(Treated by DR. MACARTHUR.)

W. N. B., aged twenty-nine, was the subject of an attack of inflammatory rheumatism precisely three years ago, affecting all the joints, and complicated with endocarditis, lasting four weeks.

March 1st. Found patient in bed with several of the larger joints affected, very emaciated and great debility from riotous living and dissipation. Was immediately put on the alkaline treatment with iodine applications to the swollen joints and rolled up in cotton batting. This was continued, with the addition of tonics, nourishing diet, etc., for fifteen days, my patient becoming weaker and the rheumatic difficulty growing worse from day to day.

March 16th. Patient very much depressed in spirits, haggard countenance, anemic murmur at base of heart and every joint in body affected with rheumatism. All previous treatment discontinued; was ordered 10 gr. doses of salicylic acid every two hours in wafer paper at 10 A. M.

Met Prof. Allen at 7 P. M. in consultation. Found patient very much improved; countenance quite bright, with the stiffness and soreness of joints very much diminished. Prof. Allen very kindly consented to give the salicylic acid a fair trial, although he had no faith in it.

17th. Patient exclaimed, on my entry into the room, that he had no use for me, his rheumatism was all gone; had slept well for the first time since his illness began; except when awoke to take his medicine, slept continually all night. Had only taken 120 grs. of the acid, producing no unpleasant effects, except hyperæsthesia in hearing. On account of illness, did not visit patient for five days, when I learned that the day prior he had some rheumatism in his left shoulder, elbow and

wrist. Ordered the acid to be repeated, when he now took 240 grs. with entire removal of all rheumatic symptoms from this time forward; no relapse occurred, and his recovery was rapid and permanent. The treatment followed is that of Dr. Stricker, of Charity Hospital, Berlin.

CASE II. Acute inflammatory rheumatism cured in 36 hours; 360 grs. of the acid administered in 10 gr. doses consecutively.

M. B. Thompson, aged forty-six, came to Chicago last fall from Alabama, where he had been a victim of yellow fever and intermittent; had the last disease for the past three years whilst living south.

March 26th. Arrived at patient's house at 4 P. M.; found him unable to stir hand or foot, or turn over in bed; face flushed, temperature 104.5, pulse 136, respiration 20, tongue coated; was suffering most acute pain in all his joints, which were very tender and swollen; even the carpal and phalangeal articulations were involved. I immediately prescribed the acid in 10 gr. doses, to be taken every two hours; no other medicine.

27th, 10 A. M. Temperature 101, pulse 97, slept well after 2 A. M.; joints could be moved freely without producing much pain; swelling diminished, tongue moist, perspiring freely; the acid to be continued.

28th. Pulse 80, temperature 99°; swelling of joints entirely disappeared; could be freely handled and moved about without producing the slightest pain. Ordered the acid to be continued every four hours. This was my third and last visit, as patient's wife reported from day to day his condition. The acid was continued until he had taken 360 grs. in all, when the rheumatic symptoms had all subsided. On the following day—the fifth of the disease—was put on a tonic of quinine and iron; convalescence was rapid; walked around the house on the sixth day, and continues to improve daily. No toxic effects from the drug except ringing in his ears and somewhat dull in hearing.

CASE III. RHEUMATISM TREATED BY SALICYLIC ACID.

(Case treated by DR. A. FISHER.)

G., an Italian, fifty years of age, had suffered from previous attacks of rheumatism. On March 13, 1876, Dr. Fisher was called to see him in a close and poorly ventilated apartment in the third story of a public building. He was then found to be suffering from a rheumatic affection of the wrists and knees, which were swollen to such a degree as to produce immobility; quite painful and tender, and exhibited externally a roseate flush. There was also fever, a rapid pulse, and the tongue coated with a thick pasty secretion. The patient improved under the treatment by colchicum and the iodide of potassium until three or four days had elapsed, when all the symptoms recurred with the severity of the first manifestations of the disease. On the 22d of March he was placed on 10 grains of salicylic acid given every two hours, night and day, until two drachms had been taken.

March 23d. The patient declared he was cured; the swelling of the joints, pain and tenderness had quite subsided. The acid was given every four hours only.

March 24th. Improvement rapid and satisfactory. Tongue clean and appetite returning. Ordered the acid to be given for a brief time thrice daily and discontinued attendance.

THE CHICAGO MEDICAL SOCIETY.

Meeting, May 15, 1876.

(Reported by J. SUXDAM KNOX, M. D.)

Prof. Jos. P. Ross exhibited a pathological specimen of tumor of the brain, with its history, as furnished by Dr. Cunningham, of the Cook County Insane Asylum. The following is a brief summary:

Peter Riley, Irish laborer, aged thirty-one, was admitted to the asylum Oct. 21, 1873, as a case of mania epileptica, and died there in convulsion Feb. 15, 1876. From three months previous to admission in the asylum, until death, the patient

was subject to apparent epilepsy, falling suddenly convulsed and unconscious, without premonitory symptoms, and recovering from the attacks without stupor. These convulsions occurred from once to three times a day, with occasional intermissions of three or four days. His gait was shuffling and staggering, not favoring either side. His speech was thick and incoherent, and his intellect impaired, with inability to converse or reason. He however daily recognized his attending physician. He walked about the ward the day before his death.

An autopsy revealed the following abnormal conditions. The vessels of the meninges were extensively engorged with blood, and the parietal grooves for the middle meningeal arteries were extremely well marked. Imbedded in the substance of the left convolution of the longitudinal fissure, near its upper margin posteriorly, and entirely unconnected with the meninges, was a calcareous formation of irregular shape, about one inch in length, $\frac{3}{4}$ inch in breadth at widest part, and $\frac{1}{4}$ inch in thickness. Separated from this growth and close to it was another of similar character, about twice the size of a pea. Directly above this spot, in the convolution, the arachnoid was slightly covered by a bluish white, purulent appearing substance, and the dura mater was more than normally adherent to the parietal bone. The left lobe of the cerebellum was almost entirely wasted, what remained being so disorganized as to break down under the slightest touch. There was no indication of any previous injury of the skull.

Dr. Ross expressing regret at the meagre history of the case, reviewed briefly the tumors of the brain, viz.: 1. Those connected with the meninges of the brain and its cavities—tubercular and syphilitic. 2. Those associated with the sheaths of bloodvessels—tubercular, syphilitic and cancerous. 3. Those arising from the neuroglia of the brain itself—called by Virchow gliomata. The Dr. then put the question whether the specimens presented were the ultimate product of a tubercular tumor, with subsequent calcareous degeneration, or a similar degeneration of a glioma.

Dr. H. M. Lyman thought that the specimens were the ulti-

mate product of a glioma with subsequent ossification. The convulsions, from their character, were epileptiform and not epileptic.

Dr. E. L. Holmes expressed the opinion that the tendency of gliomata arising from the retina was to increase and absorb surrounding tissues, not to degenerate. Tumors any where in the brain very often produce blindness. It is extremely difficult to locate them, with blindness as the prominent symptom. He then briefly narrated a case (reported in *Archives of Ophthalmology and Otology*, Vol. 4, 1875,) occurring in his practice several years ago. The patient first experienced a fullness of the head with complete deafness in the left ear, soon followed by a peculiar intra-cranial sound synchronous with the pulse. Gradually vision of the left eye began to fail and then that of the right. Soon after the sense of smell became totally, and the sense of taste partially destroyed. The patient also experienced the most intense and disagreeable subjective odor, also at times agonizing pains in the right hip joint. In the last months of the illness there was progressive muscular paresis, with extreme emaciation. The patient died after a three years' illness, with all the special senses destroyed except hearing in the right ear. The mental faculties and the power of speech remained until the last two days. An autopsy revealed a tumor as large as a hen's egg at the base of the brain, which proved to be a hypertrophied pituitary body. The tumor had pressed upon the carotid artery, causing a large anæmism. A quantity of serum was found in the ventricles so large as apparently to have absorbed all the white substance of the brain.

Dr. W. F. Lewis next reported a most interesting case of pleuro-pneumonia, with ulceration of the lung and pleuræ and escape of air into the cellular tissue. The Dr.'s history of the case was as follows:

"I was called to attend Mr. G. on the 30th March, 1876, the third day of his illness. There was great dyspnœa, the patient being compelled to sit up in bed; pulse 110; respiration 30; temperature normal; skin moist; abdominal breathing. There was crepitation of air in the cellular tissue over

the whole chest and a part of the neck, with considerable tumefaction and fullness of the right side of the chest. Physical exploration of the chest gave on palpation vocal fremitus, exaggerated over left and absent over right lung, save at the apex; on percussion, dullness over entire right lung except at the apex, which with the left was tympanitic. Auscultation revealed tubular breathing over the entire right lung, except at the apex, where there was exaggerated respiratory sound. Patient stated he was taken sick March 27th with acute pain in right side, and said 'something had given way there.' There then occurred slight chill, attempts at vomiting, dry hacking cough, with 'swelling of the neck,' which increased by nearly one-third its natural size; this lasting, however, only for a short time."

There was no history of hereditary disease, and patient was apparently a robust man, though for a number of months he had been slowly failing in health. Death occurred April 1, 1876, after an illness of five days. Autopsy made the following afternoon. By special request of the friends thorax alone opened. Body well nourished. Enlargement of right side of chest very noticeable, also the presence of air in the subdermal cellular tissue. Upon removal of the sternum there was a large escape of serum from the right thoracic cavity, turbid with flakes of lymph and with pus. The lower two-thirds of the lung was bound in many places to the costal pleura by firm adhesions, especially so over the middle anterior surface of the lower lobe. These adhesions were so firm that it was impossible to remove the lung in fit condition for proper examination. The upper half of superior lobe of right lung, and the whole of left lung, appeared normal. The balance of the right lung was hepatized. At about the middle of the anterior surface of the lower lobe, (the point where the adhesion to the costal pleura was the densest,) a cavity was found filled with pus.

Dr. J. P. Ross remarked that the case was undoubtedly one of pleuro-pneumonia, with adhesion of the pleuræ at the point indicated, subsequently the formation of a pulmonary cavity there, connecting with some large bronchial tube, and then

ulceration through the adherent pleuræ and escape of air. He thought the case extremely rare; had never seen a similar one either in hospital or private practice. Pneumo-thorax, however, was common enough as a result of violence.

Dr. N. Bridge, who, in consultation, had seen the case the day before death, and had then observed the normal temperature, expressed some doubt as to whether pneumonia with hepatization of lung could have occurred so recently, and the temperature have returned so soon to the normal standard.

Hospitals.

MEDICAL DEPARTMENT, COUNTY HOSPITAL.

Service of DR. LYMAN.

(Reported by DR. FENN.)

May 2, 1876. Dr. Lyman presented and made remarks on the following cases:

1. *Chronic Bronchitis.*

Duration three years. A young man. Dyspnoea and cough, worse at night, owing to irritation of sympathetic sub-mucous ganglia. In the day time the influence of the brain reaches the ganglia and restrains them. At night the brain is asleep and the ganglia are left free to respond to excitement. This man's cough and dyspnoea have continued for two years. There is shortness of breath from diminished calibre of the bronchial tubes. In infants swelling narrows the small tubes more than in adults. In infants, therefore, the dangers from dyspnoea are much greater.

Treatment. Care in the acute stage, for there is danger of its becoming chronic. Allay nervous irritability; liquid food; divert the column of the blood; act on the capillary net work

to dilate it and allow the blood to go on. Tartar emetic and sulphate of morphia of each $\frac{1}{32}$ of a grain every hour go well together. In a short time there will be copious perspiration. To promote expectoration give squills. Finally, if there be danger of the attack becoming chronic, administer benzoin, pitch and tar fumes; and later, and by all means if the attack have become chronic, iodide of potassium. This patient had it; whenever it was omitted he got worse. He will probably be an invalid as long as he lives, or at least liable to a new attack with every exposure to cold.

May 5. A number of cases illustrative of diseases of the liver.

1. *Acute Cirrhosis.*

A bright, good looking young woman, aged twenty-two, from the dispensary. Dr. L. remarked that here was a case illustrating the effect of acute disease of the liver. There is a considerable degree of prominence to the abdomen. The lower portion is filled with fluid. Chest resonance lost on the right over the nipple. Dullness on the left. Back dull at a point just below the scapula. The ear applied to the chest detects a respiratory murmur only above the point of dullness. Her hands are cold; tongue red and fissured; feet slightly swollen. Her life has not always been what it should be; she has had syphilis. On her recovery from this she resumed her old course, but had greater hardships. A year ago she began to complain of pain in the right side. She began to take morphia and has continued it ever since. This perhaps accounts for the condition of the tongue; these fissures always indicate chronic dyspepsia. Coldness of the hands is accounted for by the habit of taking opium. Now how shall we account for the enlargement of the abdomen? She says that three weeks ago she was feeling pretty well; then she began to have severe pain under the short ribs, where her pain began a year ago. The dullness extends to the limit of an enlarged liver. In this young person we have a cause which is apt to produce inflammation in any or every organ of the

body. Syphilis when it attacks the liver produces degeneration; obliteration of vessels ensues. This is as if an obstruction occurred in the current of a river; it may be the product of inflammation of Glisson's capsule. The watery portion of the blood accumulates by extravasation into the abdominal cavity. Two years ago syphilis; one year ago pain; now syphilitic disease of the liver. We only wish this might be the last link in the chain of evils that follow. She will probably return for tapping. Dr. L. recalled the anatomy of the liver and recommended to get the idea in a bunch of grapes. The stalk is the hepatic vein. A spider spins his web amid the clusters. This may represent the ramifications of the hepatic artery. Another spider's web over the same surface may represent the portal veins in their finest distribution. The lymphatics and nerves in like manner intimately pervade the spaces between the lobules. Another system or web exists in the bile ducts themselves ready to receive the bile, one of the most complicated and most beautiful. All these elements are supported by areolar tissue. Here is the seat of this inflammation. First there is swelling, then effusion, then contraction; hence pressure interfering with the passage of blood, with nutrition of the liver, and with the removal of bile—in every respect like a cluster of grapes, shrinking until it becomes a dry and sapless bunch of raisins. This condition exists in the following case:

2. *Chronic Cirrhosis.*

Admitted March 20th. The abdomen is sunken; great emaciation. On percussion of the lungs resonance is great; resonance where it should be dull; that is, over the region of the liver. Resonance all over the abdomen in varying degree, according to the size of the bowel. The liver is evidently shrunken. A drop of sulphuric acid in a little of his urine, on a plate, develops a violet color which spreads, showing bile to be in the urine. The only way of escape to the bile, if any hepatic cells retain the power of secretion, is by resorption into the blood vessels. This is cirrhosis. There is no fluid in this case because the man has hemorrhoids. The

bloody discharges unload the engorgement in a measure; besides, we believe that anastomosis has taken place between these enlarged hemorrhoidal vessels and the internal iliac. He also has diarrhœa. There is distention of the capillaries and thickening of the mucous lining of the stomach and intestinal canal. Nutrition is interfered with. The patient starves to death. The temperature is elevated to $99\frac{1}{2}^{\circ}$, enabling us to distinguish these from cancerous affections, in which the temperature is usually depressed. He is really in the last stages.

3. *Chronic Cirrhosis; Dropsy.*

Another old case exhibited as a variety of the disease. He has been tapped twice. Now the distension that has again occurred demands that the operation be repeated. Note particularly the effect upon the umbilicus, where it appears as if there was a little hernia. This is owing to the weaker structure of the abdominal walls at this point from the great pressure of the fluid within. The most common cause of cirrhosis of the liver is alcohol. Alcohol promotes a tendency to the coagulation of albumen. As soon as it is all absorbed it has to pass through the liver. The brunt of the attack is here; constant irritation does the work. The disease is difficult to trace clear to its origin, but little by little it comes on. Finally there is almost complete disappearance of the channels through the liver, as we have described; outpouring of serum and plastic lymph into the cavities or in the areolar tissues of the body. The duration is essentially chronic, but if the cause be syphilis it is apt to be rapid; little can be done. It cannot be cured; we can only palliate; draw off fluid; relieve pain; assist bowels, urinary organs and skin. In general, sooner or later, the patient becomes a victim to the anatomist's scalpel.

1. *Typhoid Fever.*

May 9. There is the same relation between spurious and genuine typhoid fever that exists between cholera morbus and Asiatic cholera. The lesion is the same when death occurs, but

there will be no propagation of the disease. True typhoid fever is propagated. A great amount of the typhoid fever in towns is due to contamination of the soil and percolation into the wells and springs. It is a very important thing, therefore, to be careful what becomes of the excretions of typhoid patients. Dr. L. related an account of the outbreak of typhoid fever which recently occurred at the village of Lausanne, in Switzerland. (*Nature*, Vol. xiii., p. 447.) The source of the poison was traced to an isolated farm house on the opposite side of a mountain ridge, where an imported case of typhoid fever followed by two others occurred shortly before the outbreak. A brook which ran past this house received the dejections of the patients, and their linen was washed in it. This brook was employed for the irrigation of some meadows near the farm house, and the effluent water filtered through the intervening mountain to a spring used in all the houses of Lausanne except six which were supplied with water from private wells. In these six houses no case of fever occurred, but scarcely one of the others escaped. No less than one hundred and thirty people, or seventeen per cent. of the whole population were attacked besides fourteen children who received the infection whilst at home for their holidays and afterwards sickened on their return to school. The passage of water from the irrigated meadows to the spring at Lausanne was proved by dissolving in it at the meadows eighteen hundred weight of common salt and then observing the rapid increase of chlorine in the spring water, but the most important and interesting experiment consisted in mixing uniformly with the water fifty hundred weight of flour, not a trace of which made its way to the spring, thus showing that the water was *filtered* through the intervening earth and did not pass by an underground channel. So far as medicine is concerned there is very little to do. We have the effect of poisoning of the blood, interference with nutrition and with elimination. It requires a determinate time for these changes to take place. Sometimes eliminants are sufficient; but generally the germs have propagated themselves and have poisoned the tissues. The tendency is to destruction of tissue. The temperature here now is 103° .

We must supply nutriment; food should be given frequently and in small quantity. The diarrhœa in the early stages of the disease is due to irritation of the mucous lining of the stomach. It is not well to interfere in the first stage; but in later stages give acids. Mineral acids have no direct curative effect; secure sleep. Be careful about the administration of opiates. Do not leave them to the discretion of the nurse, lest they produce a tendency to collapse. The temperature should be attended to above everything else. The heart becomes degenerated very rapidly by the great heat of the blood; hence the feebleness. The patient may faint and sudden death may occur. The effect of the high temperature on the nervous system is to produce delirium. To lower the temperature of the patient put him in a bath at the temperature of the blood, then cool to 72° . Keep him in ten minutes. Afterwards watch him; if his temperature rise to $102\frac{1}{2}^{\circ}$ put him in the bath again. This treatment has reduced mortality greatly; it diminishes the dangers from every direction. In the epidemic which occurred among the dregs of European armies after the Franco-Prussian war, the mortality was reduced from twenty-seven per cent. to eight per cent. by this method. Some precautions are very necessary; use the thermometer; have a good nurse, and follow up faithfully. After putting the patient back to bed, a little wine may be given if he is faint. Thus typhoid fever becomes an easy and agreeable disease to treat.

2. *Pneumonia, complicated with Pleuritis, Bronchitis and Tubercular Deposits.*

A fair-skinned young man pretty well developed, arrived yesterday. He has had a cough for three years, as he says. One week ago, after sitting in a cold draft, he had a chill and great pain in the right side. Respiration now 56; temperature 104° ; tongue normal; expectoration frothy, tenacious, colored with blood. Such sputa are complex. The frothy portion is from the bronchial tubes. The tenacious portion arises in the bronchioles; the blood is partly from there, but primarily from the air cells of the lungs. Resonance exists

all over the left; dullness all over the right; loss of respiratory sound at the base. Over the middle it is almost cavernous, so exaggerated is the tubular character of the breathing. There is also a well marked friction sound anteriorly. Rhonchus is perceptible to the hand on both sides. We have a combination here of inflammation of the air cells and finer air tubes, pleurisy and bronchitis; this patient has had a cough for three years. Since it is unusual to find pneumonia at the apex without tubercular deposit, it is probable that we have tuberculosis also. But in tuberculosis we have no characteristic symptom. In pneumonia the exudation is in the air cells and in the bronchioles. The consolidation is the same; the irritation is the same. But a distinction may be certainly derived by watching the location and progress of the consolidation. It is not probable that he will get well perfectly, but rather that the tuberculosis will extend. We can only assure him of an amelioration of his symptoms. The man will get back with another attack in a year or two. Treatment rational. He has only one lung to breath with now; hence there is an accumulation of carbonic acid in the blood. Make the blood flow more rapidly by inviting it from the lungs to the surface and relieve the pressure in the engorged capillaries. Mustard and cups will do this. The lung surface equals 200 square yards of aerating membrane. In this case 100 square yards are gone. Supply the deficiency by increasing the activity of the bowels, skin and kidneys. A stimulating cathartic, as of rhubarb, soda and calomel, will do well. Give acetate of potash water, or effervescing powder and water to stimulate the kidneys; stimulating expectorants; give ipecac., just short of producing nausea, often as once in two or three hours, small doses often. If patient get relief from poultices use them. If he be a child, use oil silk lined with Canton flannel; it is almost as good as a poultice and neater. Pour in nourishment as rapidly as possible; milk, milk-punch, stimulants in large quantities; sometimes a quart of brandy daily; even two quarts in twenty-four hours; but in general a tablespoonful every hour is sufficient. Avoid opiates, for they interfere with the

circulation of the blood by contracting the capillaries. Resort to remedies which dilate the capillaries; chloral does this.

REPORT OF CLINICS IN COUNTY HOSPITAL.

Medical Department, Service of DR. BEVAN.

(Reported by DR. FENN.)

The Cook County Hospital for the Month ending May 10, 1876.

March 21. Dr. Bevan introduced and made remarks on the following cases:

1. *Locomotor ataxia.*

A fair, black haired woman, aged about forty. There is loss of ability to use the limbs; simply want of power of co-ordination. She is able to resist flexion or extension, when the attempt is made passively, to bend or to straighten her limbs against her will. The capacity of man's strength is inherent in the muscles themselves; but if this patient attempts to stand with her eyes shut she totters over. There is also a great amount of confusion in her head if she merely shuts her eyes lying down; vertigo, dizziness. Pathological anatomy discovers changes in the spinal cord, a low degree of hyperæmia, known in *post mortems* by degeneration of the posterior columns; sometimes sclerosis, sometimes softening or thickening. These patients seldom die but of some intercurrent disease, enteritis, disease of the bladder or some lung affection.

Treatment. Nothing permanently influences it. Counter irritation is of no use. All forms have been tried, even the actual cautery. Sometimes good seems to be derived from the neuro tonics. Sometimes from electricity, by keeping the nerves to the lower extremities somewhat stimulated. On the theory that there is hyperæmia, the treatment mentioned in the history was bad. It will probably all fail.

2. *Tubercular degeneration of the mesenteric glands.*

A pale, emaciated child, aged five or six years; has been sick four months. He has had a cough continually. Spits white thick stuff. Abdomen rather portuberent, as in scrofula. Dullness at the apex of the left lung.

Treatment. Two drachms of cod liver oil and fifteen drops of the syrup of iodide of iron. Externally paint with the tincture of iodine and apply oil silk or chamois skin.

1. *Pathological.*

March 25. Exhibited a brain from a man who had died of apoplexy. Duration one week. A physician. On laying open the ventricles, a large dark clot of blood was found in the left and a collection of serum in the right. The condition of the tissue over the clot was that of disorganized brain matter, diffused like a layer of mortar. The surface of the brain was covered with a thin, pearly coating, the result of fibrinous effusion. Under the membrane a decided serous effusion was found, which flowed away. The paralysis had been so great that he could neither swallow food nor medicine.

Dr. B. remarked that the Hospital afforded numerous such cases, but the friends generally desire to take them away, hence the opportunities for *post mortem* examination are few.

2. *Chronic Eczema capitis.*

Old man, aged fifty-three. Disease since last August. Moisture has about ceased.

Treatment. Add six grains of carbolic acid to each ounce of the benzoated oxide of zinc ointment as a stimulant, and give ten drops of Fowler's solution three times daily.

3. *Sciatica.*

Of moderate intensity. The man is from Riverside, where they have ague. A blister has been directed for the outside of the trochanter, and the nerve will be followed up with counter irritants. Also six grains of quinine to be given four times daily, and two grains of opium at night.

1. *Epilepsy.*

March 28. Twelve years standing. Young woman, aged 26, black haired. Opisthotonos is so great during the attack that her body describes half a circle. There is an amount of rigidity that leads almost to muscular inflammation. Soreness continues for some time. The face is seen to be twitching: she says she feels the spasms working on her now. She complains that her flesh feels as if it was full of little needles. She has been receiving thirty grains of bromide of potassium four times daily, and recently one grain of belladonna. It is now proposed that she have an increase of half a grain every five days until she gets three grains at a dose. It affects her sight. The bromide will be continued.

2. *Scurvy.*

A well developed young Norwegian.

Treatment. Abundance of nourishment.

3. *Chronic Dysentery.*

Eight months. An emaciated, slight man, aged about thirty. Seven stools daily. Loss of appetite. Ordered for him yesterday one grain each of opium and ipecac., and two grains of camphor, three times daily. There is entero colitis. Strong nitric acid has been applied to the surface lately, as high as possible, with benefit. Milk diet. The disease is hard to cure here. The class of patient is unfavorable. The food is unfavorable.

Medical News and Items.

PREDETERMINATION OF SEX.—Dr. Preston Capshaw, in the *Phil. Med. and Surg. Rep.*, revamps the old French idea of begetting children of either sex at will. Stock raisers, it is claimed, by regarding the conditions necessary to this predetermination, are enabled to control the sex of colts and

calves. When a *female* product is desired, sexual congress is permitted only at the *earliest* period of the erotic fever. When the *male* young is desired, the sexes are to be kept apart till the climax of erotism is passed. Applying this rule to human beings, the Dr. has found abundant instances to confirm his views. Coition just *prior* to menstruation begets girls; *after* menstruation, boys. Sexual intercourse abstained from for a period of ten or fifteen days *after* menstruation, constitutes a trespass upon the succeeding period, and the result will consequently be a girl. This theory is not a new one. It has been before the profession for many years, and its conspicuous failure in well authenticated cases has been very, very often annotated; so that at the present time it is almost wholly disregarded by physicians. An acquaintance of ours, a very intelligent doctor, who firmly believed the theory, one day expatiated at some length on the certainty of this method of predetermination, and boastingly wound up his remarks by announcing that his residence would furnish, within thirty days, an illustration of the triumph of the theory; it was to be a boy. Within the time specified the doctor's family was increased to the extent of TWO LITTLE GIRLS!!

THE SHOWER OF FLESH IN KENTUCKY.—Dr. A. McL. Hamilton says he has examined, with Dr. J. W. I. Arnold, a piece of the substance of this famous shower, sent to Prof. Chandler of New York. He says they found the piece—ten lines in length by four in breadth—to be lung tissue. There were bronchi, blood vessels, air cells, etc.

Dr. L. D. Kastenbine, who has examined specimens of the matter deposited, declares that he found it to be muscular fibre, that it was voluntary muscle and that he saw the striae distinctly. "On heating a small portion on a platinum spatula," over a burner, "it melted and burned with a 'spurting flame,'" "and the odor was distinctly like rancid mutton," and was so pronounced by meat experts.

On the other hand we are told the substance found, and

supposed to have been deposited in the shower, was nothing but a fungous vegetable growth that develops very rapidly—develops in a single night—from minute germs carried by the winds, and that therefore there was nothing remarkable about the appearance.

We hope somebody will write the true story of the phenomena of that “shower,” and in a way, and attended by an array of facts, and proof of them, that will make the account past gainsaying.

A NEW STOMATOSCOPE.—Dr. Bruck, Jr., a *private docens* of dentistry, in Breslau, has discovered a new mode of illuminating the teeth and cavity of the mouth. The apparatus enables the practitioner to detect the slightest morbid changes in the teeth, and so great is the intensity of the light (to produce which the Drummond line light is employed) that even the roots of the teeth within the jaw can be recognized.—*Med. Times and Gaz.*, April, 1876.

SCHOOL children's eyes suffer more or less from injured vision, when the school room has windows on both sides; and Germany thinks so seriously of the matter that a law has been passed in that empire, forbidding bilateral windows in schools.—*Times and Gazette*.

THE WAY THEY DO THINGS IN FRANCE. ATTEMPTED PERSONATION AT EXAMINATIONS.—T. Boiron has just been tried at the assizes, with one Coure, an *employé* at the Ville-de-Paris, who had obtained for his accomplice a false certificate, in order to obtain inscription at the Faculty at Montpellier, and enable him to pass the examinations in place of one Crespin, who had fled to Spain. Boiron and Coure were both found guilty, the former being condemned to five years' penal servitude and the latter to five years' imprisonment.”—*Gaz. Hebd.* April 7, 1876.—*Times and Gaz.*

NECROLOGICAL.—M. Béhier, Professor of Clinical Medicine, in the Hôtel Dieu, died in Paris, May 8.

DR. LUDOVIC HERSCHFELD, Professor of Anatomy, in the University of Warsaw, and the author of the well known Atlas of Plates of the Nervous System, died from dropsy, on May 10.—*Eæ*.

Summary of Progress in the Medical Sciences.

I. GYNECOLOGY.

1. *Harmlessness of grave Operations in Pregnancy.* NICAISE. (*Before the Paris Surgical Society, March 8.*)

A woman had periosteal sarcoma of the humerus so far developed that disarticulation was determined upon in spite of the fact that she was far advanced in pregnancy. No accident occurred and labor supervened normally in five weeks. It was concluded that severe surgical operations in pregnancy are less dangerous than is commonly supposed.

Verneuil considered that the gravity was proportioned to the intensity of the traumatic fever. If the temperature rises above 40° C, abortion and all its complications may be feared. But if the traumatic fever is moderate, the prognosis in pregnancy is no less favorable than when there is no gestation.

Polaillon believed that two other factors were not without their influence. Abundant hemorrhage predisposed to grave accidents; and the period of gestation is to be considered, for the first four or five months are more to be feared in this respect than the latter half of the term of pregnancy.

Guéniot agreed with Verneuil, but thought that absolute conclusions could not be drawn from these statements. He had seen women arrive at term after passing through all the stages of pericranial erysipelas of the worst form. An element of uncertainty exists in the variable contractibility (physiological irritability?) of the uterus in different women. This difference explains why traumatism is not always followed by the same results in pregnancy.

2. *Cysts of the Vagina.* DUPUY. (*Gazette Obstet, April 20.*)

All authors agree as to the rarity of vaginal cysts. Judging, however, from the number of recently reported cases, it would seem that this rarity has been exaggerated. The first description of this disease is to be credited either to Sir Astley Cooper or to Okley Heming (1831). Hausmann, however, in Haller's *Elementa Physiologia Corporis Humani*, has discovered the following passage: "*Glandulas vagina veras, rotundas, varii viri reper-*

erunt; etiam depinxerunt, in brutis frequentioras; tamen etiam in hominibus. Eas non reperi, estas hydatides (a synonym for cyst in that day) in vagina vidi, et rejecit Ill. Morgagni."

They are most often found in the anterior vaginal wall, near the urethra; they are, however, to be discovered elsewhere. A cyst was found in 1872 (service of Demarquay), in the posterior wall, and quite voluminous. There is no recorded observation of such in the lateral walls.

Hegar and Kaltenbach have determined the exact position of these tumors. They are either submucous, interstitial (between the laminae of the muscular layer) or subserous and perivaginal [between the vagina and rectum, above Douglas' cul-de-sac]. Huguier believes they originate in obliterated follicles of the vaginal membrane, but Preuschen declares they arise in two distinct forms: (*a*) simple invaginations; (*b*) the more numerous are deep and broad depressions, presenting narrow prolongations in the shape of the fingers of a glove.

The epithelial lining of the vagina is prolonged into the glands: in the excretory canal it is stratified; elsewhere in the glands it is ciliated and cylindrical. Vaginal cysts may be due to retention of secretion in these glands. When they are found in the excretory canal, the enveloping membrane is furnished interiorly with pavement epithelium; when, on the contrary, they are found in the gland proper, the epithelium is cylindrical.

A vaginal cyst may originate in a hæmatoma. Barnes describes hæmatoma of the vaginal parietes resulting in several cases from labor. The resorption of the blood leaves a pouch which later becomes filled with serum, or sero-pus.

Kolaczek saw a cyst formed by the dilatation of a lacuna of Morgagni, the orifice of communication with the canal of the urethra having been obliterated. The woman was twenty-six years old and had suffered from uterine prolapse for six years. A fluctuating tumor in front of the anterior lip projected beyond the vulva, interfering with locomotion, and yielded, on puncture, a thin mucous fluid, which continued to exude through a fistulous orifice. The cyst, after extirpation, displayed a very dense stratified pavement epithelium. Hence the diagnosis. The dimensions of these cysts vary from those of a pea to those of the fist, and they are sometimes larger. The enveloping membrane may be dense and of determinate borders; or it may be thin, without line of demarcation separating it from contiguous parts. The contents are most often clear colored (like synovial fluid): when ruptured or incised it may become fetid and occasion septicemic accidents.

Certain varieties contain gas (Winkel, Braun, Schröder, Breisky). Schröder's case was that of a pregnant woman, almost the entire portion of whose vagina was covered with confluent elevations, some bright red, others gray and transparent. When punctured small crepitation was heard, and no liquid escaped. Pavement epithelium of variable dimensions was found on their interior, in the midst of which were large rounded cells containing a finely granular protoplasm and beautiful vesicular nuclei.

Breisky's case suffered from vaginal blennorrhagia. The anterior half of the vagina was normal, but the remainder was a conglomerate of small tumors (half pea to small nut in size), rosy or pure white in color. Some had a central depression, the umbilicus and contour of bright red hue. The white, on puncture, gave exit to gas, the red only a few drops of clear serum.

Vaginal cysts interfere with menstruation and coitus, may cause dysmenorrhæa; when extragenital may be painful or interfere with motion.

Simple puncture and ordinary incision do not promise much in the way of treatment. Puncture and irritating injections, or incision and cauterization may be followed by intense reaction, paravaginal inflammation, parametritis, violent inguinal or iliac pain.

Excision of a part of the wall of the cyst may be followed by secondary hemorrhage, requiring the tampon and styptics.

The radical and certain method is total extirpation. A longitudinal incision is made in the long diameter of the tumor, and the vaginal and cystic walls separated by dissection. When the latter is dense, decortication without opening may be attempted. When the wall is thin this is almost impossible, and it is necessary to remove the cyst in its entirety not without considerable difficulty.

Extirpation is best attempted in small cysts with a resisting envelope. For the larger cysts of thin envelopes, extensive incision with cauterization or applications of the tincture of iodine are best employed.

II. THERAPEUTICS.

1. *The Electrolytic Treatment of Tumors.* JULIUS ALTHANS. (London.) *Berl. Kl. Wochenschr.*, Allg. Med. Central. Zt., 35, 1876.

In consideration of the great difference in opinions about the therapeutic usefulness of electrolysis, the author gives a brief account of his latest observations in this field.

1. *Nævus.* It is most frequently found in the face and on the scalp, and electrolysis is the most appropriate means for its removal. It is superior to excision, because there is no hemorrhage; to injections of sesquichloride of iron, because it does not endanger the life; to the cauterization by nitric acid, because it can be localized better; to the subcutaneous ligation, because after the operation the child has no pain and the surgeon has no further trouble; over the galvanocautic, because it does not leave any scar. The ordinary round, small and thin nævus usually yields to one single application, while the larger "portwine stains" require a number of sittings.

The current acts through needles, which set in rows, and connected with the poles of ten to fifteen Daniell's elements are thrust into the tissue of the nævus. As soon as the chain is closed the destruction of the tex-

ture begins with the blood vessels and the integument of the nævus appearing to wither. The destruction being more thorough around the positive pole, this must always be applied to the worst portion of the nævus. Usually not a single drop of blood is lost; if, however, by any sudden motion of the patient, a needle should come out, and a drop of blood should appear, this can be coagulated at once and any further bleeding can be prevented by directing the positive pole to the puncture. When all the morbid tissue seems to be destroyed, the current is interrupted and the surface of the nævus is covered by a piece of gold beater's skin. No further dressing is necessary because the surface remains dry. The eschar is thrown off after about ten or fourteen days, and the surface gradually assumes the appearance of the neighboring integument.

2. *Goitre*. The writer considers electrolysis as especially applicable to the cystic goitre, because it occasions neither pain nor danger. The best *modus operandi* is to introduce two or three needles into the cyst and to connect the same with the negative pole, while the positive electrode is applied to the integument by means of a wet sponge. Through the electrolytic action caustic soda is created out of the solution of chloride of sodium contained in the cyst. This caustic soda cauterizes the secretory lining of the cyst and stops any further secretion. Two to six applications usually are sufficient. In the treatment of parenchymatous goitre the author combines the electrolysis with injections of tincture of iodine into the tissue of the goitre. These parenchymatous injections break up the texture of the tumor and thus the combined method shortens the time of treatment quite materially, especially if the goitre is old and rigid.

3. *Sebaceous Tumors*. They can easily be excised; but many patients dreading an operation, and the excision being occasionally followed by dangerous, even fatal, erysipelas, Althaus advises the use of electrolysis, which will remove these tumors without danger and without leaving a scar. Both electrodes are put into the tumor to have a quick result.

4. *Carcinoma*. The writer advocates the early and thorough extirpation of every primary cancer. But in cases of secondary carcinomata the electrolysis has often done a good service. It cannot, of course, eradicate the cancerous diathesis, nor prevent the fatal termination, but it is very efficient in allaying those lancinating pains, in procuring sleep and comfort to the patient.

The histories of cases are given in support of the author's views expressed in the paper.

2. *Diphtheria Treatment*. Z. C. McELROY, M. D. (*W. Va. Med. Student*, May, 1876.)

This medical philosopher, always sensible and somewhat iconoclastic at times, thus treats this dreaded disease:

"For the bulk of cases, where the temperature does not remain high, or does not reach higher than 103° or 104° F., I seldom make more than one prescription, and am not often called to supplement it by other measures,

except in severe cases, by some opiate to relieve headache, or something to open the bowels. In the latter case I do so by half a grain calomel granules, one every six hours, the desired evacuation almost always occurring within twenty-four hours. The prescription almost always used for an adult is about as follows:

R Chlorate Potass.....	3j.
Dilute Alcohol, } Pure Water, }	} aa. f 3 vj.
Tinct. Capsicum.....	
Liq. Ferri Perchlor.....	f 3 iij.
	f 3 j.

Sig.—A teaspoonful in a wine-glassful of water, to be used as a gargle each time.

After gargling, a teaspoonful in a tablespoonful of water, more or less, to be slowly swallowed, and repeated every three to six hours.

This simple plan of treatment may be varied by increasing or decreasing the quantity of the Perchloride of Iron. For very young children sometimes only five to ten drops, to the two ounce mixture, seldom exceeding the drachm called for in the prescription, for adults, preferring to increase or decrease the frequency of its administration. The Liq. Ferri Perchlor. is not the muriated tincture of iron, though the preparations are both perchlorides. I do not get the same results from the tincture as I get from the solution, and, therefore, do not now ever prescribe the tincture, though I have thought druggists sometimes use it under the impression that they are identical. I have often to write on prescriptions, "not tincture of iron." I have no doubt there are cases occurring in this and other localities requiring other agents, as Quinia, milkpunch, etc., but within the limits of my practice I do not observe them. Diet, bread and milk, to be taken whether there is appetite or not.

I think it a little remarkable that I get very small children to use this gargle; not unfrequently they ask for it when the time draws near to take it. They say it makes their throats feel better. It saves them from having brushes or swabs put in their throats, a proceeding to which they never fail to object."

3. *Salicylic Acid as an Antipyretic.* DR. C. A. EWALD. (*Practitioner*, March, 1876.)

Dr. Ewald (assistant physician to Prof. Frerich's Ward in the Charité Hospital, Berlin) writes on this subject, after having administered between 300 and 400 doses of salicylic acid. He says that there are eight or nine authors in Germany writing to-day on the action and therapeutical uses of this acid. However they may differ on other points, they are all united in asserting that this agent has great antipyretic power. Where reduction of temperature is sought, the administration and action of salicylic acid must be the same. The best preparation is the sodium salt (readily soluble in water), in view of the fact that this salt is doubtless produced in the blood when the pure acid is used. The dose should be large, as small or divided doses have little or no effect. Seventy-five grains should be at once

administered, and if no reduction of temperature follows in four or five hours, a second, or indeed a third similar dose should be given. Two hundred and seventy-five and even three hundred grains have been given by the doctor in the course of twenty-four hours without any ill effect. Where malaise or vomiting follows, three or four drops of chloroform internally will remove them.

After one hundred single doses of salicylate of sodium, given at mid-day, in cases of typhoid fever of nearly equal severity, there was almost immediately a fall of temperature, the maximum result being reached in most cases in from four to five hours, and rarely, in from eighteen to twenty-four hours. This fact was fully established by thermometric observations made every ten minutes in the axilla and rectum. This reduction of temperature was observed in eighty per cent. The results prove the superiority of salicylic acid over all other known antipyretics. "Within fifteen minutes, or even less, after the administration, a copious perspiration breaks out, first on the face, then on the thorax, abdomen and the rest of the body, accompanied by a redness of the skin, more especially that of the face, and may be so copious that the patients may lose 500 to 750 grammes of water" (a pint to a pint and a half). The defervescence begins with the perspiration, though the two do not always continue *pari passu*. Generally the pulse, respiration and intestinal tract are unaffected. Where lesions are produced on the latter, they have arisen from impurities along with the drug, as carbolic acid. The acid is eliminated from the kidneys and appears as *salicyluric acid*. Tinnitus aurium, vertigo, hallucination in one case, and, where the sweating has been excessive, partial collapse, have occasionally been observed. Where this agent has been administered to feeble patients, analeptic and stimulating remedies have been given at the same time to forestall collapse. The *modus operandi* of this drug is wholly unsettled. Its beneficial use in polyarthritica rheumatica is universally attested. "Indeed, one may say, with certainty, that in *many cases* (of rheumatic fever) after three or four doses, or even after five or ten grammes, (75 or 150 grains) not only is the fever reduced but the *articular pains* also are dispersed, so that in a *few days acute cases may be looked upon as cured*. Whether, however, the tendency to relapses and inflammations of serous tissues is lessened is doubtful, and, indeed, from my own experiences must be negated."

4. *Hypodermic Injections of Cold Water for the relief of Pains.* S. H. DES-SAN, M. D. (*N. Y. Med. Jour.*, June, 1876.)

The notes of seven cases of relief from the articular pains of acute rheumatism are given somewhat in detail. Nothing but cold water was used hypodermically. The stereotyped result in every case was *immediate* relief from pain. The injection was made about the painful part. The larger the amount of water used, the longer was the relief. When only ten drops were used the relief was of very short duration. When a syringe full of water or more was used, the relief was very prolonged. The writer reports only rheumatic pains relieved thus.

5. *Some Bad Effects of Salicylic Acid in Acute Rheumatism.* JOSEPH G. RICHARDSON, M. D. (*Phil. Med. Times*, May 13, 1876.)

The reporter records four cases in which this agent, so lavishly lauded of late in rheumatism, was followed by some adverse symptoms. In the first case 140 grains of salicylic acid were administered in 120 hours, "when it produced *nausea* and was discontinued, without any apparent effect upon the rheumatic complaint having resulted." In the second case, 110 grains, given in 72 hours, produced a reduction of temperature to $96\frac{1}{2}^{\circ}$ F., *the pulse and heart beat becoming intermittent*. The pain and swelling were entirely abolished, and the patient received quinine, beef tea and punch freely, and was soon discharged. In the third case a hyperdefervescence resulted from taking 45 grains in 3 days. In the fourth case, 55 grains were administered in 48 hours, to a man 51 years old, an old rheumatic, on the *tenth* day of the attack. His pains were much relieved, but this "favorable result was attended with profuse perspiration, rapid reduction of temperature and marked diminution of the frequency and force of the pulse;" he also complained of great prostration, and was slightly delirious upon waking from sleep. In all these cases the tendency toward alarming prostration seems to be decided.

6. *Toothache.* W. B. HOLDERNESS, M. D. (*Practitioner*, 1876.)

A paste, made in the palm of the hand, by dropping on to a pinch of soda bicarbonate as much laudanum or wine of opium as the soda will take up, put into a cavity of the carious tooth, will often relieve the pain wholly.

7. *Poulticing in Hæmoptyses.* NOEL GUENEAU DE MUSSY. (*Union Médicale*, May 4, 1876.)

In an attack of hæmoptysis, the writer recommends poultices between the shoulders, at a temperature of about 122° , renewed every four hours.

8. *Amyl nitrite in Nervous and Mental Diseases.* PROF. PICK. (*Irrenfreund*, 2, 1876.)

The physiological effect of an inhalation of amyl nitrite is a dilatation of the arteries, especially of the head; a diminution of the arterial pressure, and an acceleration of the action of the heart. The psychological effect of the remedy is manifested by a hilarious mood of the patient. The effect lasts but a few minutes, and leaves no unpleasant sensations unless an impure preparation was used. The increased frequency of the contractions of the heart is due to the diminution or total abolition of the influence of the pneumo-gastric nerve on the functions of the heart. The dilatation of the arteries is caused by the direct influence of the amyl nitrite in the blood on the muscular tunic of the vessels. The amyl nitrite has successfully been employed in all those nervous and mental diseases which are caused by muscular contractions of the arteries or by an excessive arterial pressure.

Hemicrania, attended by hard pulsating temporal arteries, and by extreme paleness of the face, was quickly relieved by the inhalation of amyl nitrite.

Epilepsy, caused by an anæmia of the brain, as the result of arterial spasms, yielded readily to the inhalation of amyl nitrite. If there was an "aura" preceding the convulsions, the attack could almost always be prevented by an inhalation. Brunton first recommended the amyl nitrite for *angina pectoris*, and its favorable influence on this affection has since been confirmed by many writers.

As to its therapeutic value in melancholy the statements are very conflicting. Meynert claims to have obtained favorable results from its use, while others do not think their patients have been benefited by it.

9. *Croton Chloral*. EMMERT. (*Elin. Monatsbl. f. Augenheilk. Memorabilien*, xxi., 2.)

Emmert's experiments lead to results directly opposed to Liebreich's. The croton chloral he experimented with was obtained from Liebr., and employed in the doses recommended by it. "In the most cases four grammes were given. In all cases I observed a blushing of the face, and at first an acceleration, then a retardation of the respiration; the rate of the pulse varied between 60 and 90. Only in one single case there was an undoubted effect of the remedy; it was dubious in all the others. An iridectomy was performed on a very nervous patient, who, under the influence of croton chloral, grew very hilarious and laughed at the operation. A few days later the same operation was performed on the same patient's other eye; but this time no chloral was given and the patient experienced great pain." E.'s conclusions are: 1. Croton chloral may be given safely in doses of six grammes; 2. It is unreliable in its effects; 3. That it does not procure any sleep; 4. It does not cause a complete anæsthesia of the trifacial nerve; 5. It diminishes somewhat the nervous irritability.

10. *Specific against Hydrophobia*. GRZYVALA. (*British Md. Jour.*, April, 1876.)

The writer claims for *XANTHIUM SPINOSUM* antirabic properties. Its efficacy has been tested in one hundred victims bitten by rabid animals, of whom he lost none. Some astonishing instances of the marvelous power of this drug are given, two of which are appended. Twelve persons of one family had been bitten by a mad wolf. Six of this number were admitted into the hospital of Olschanka, Government of Podolia, district of Balta, and were treated with this drug, and all recovered. All of the others, treated with the actual cautery and the daily use of *genista tinctoria* died with hydrophobia in from twelve to sixty days. Thirty oxen had been bitten by a mad wolf; five of them died hydrophobic. The remaining twenty-five were treated with *XANTHIUM SPINOSUM* and recovered. Of the dried leaves, powdered, the dose for an adult is nine

grains, thrice daily. For children under that age, half that dose. For the animals above alluded to, the dose was three ounces daily, given in bran. Too warm a welcome to this new aspirant for the honors of specificity against hydrophobia cannot be extended. The trustworthiness of Dr. Grzyvala is vouched for by Prof. Guber, of Paris.

(XANTHIUM SPINOSUM, or CLOT WEED, is a native of the United States as well as Europe, growing in the fields and roadsides from Massachusetts, to Pennsylvania and Georgia. It is a plant growing about one foot high very conspicuously armed with straw-colored spines, and possessed of distinctly sudorific properties.—ED. JOUR. AND EXAM.)

11. *Butyl Chloral*, (*Crotonchloral*.) O. LIEBREICH. (*Deutsche Med. W.*, Centralbl. f. Chir. 18, 1876.)

The writer experimented on rabbits to determine the physiological effect of the butyl chloral. The animals first fell into a profound sleep and exhibited a complete anæsthesia of the head, while any stimulation applied to the extremities still brought out the reflex actions. The anæsthesia then gradually extended from the head over the whole body, when the reflex movements could be elicited no longer. When death occurred the respiration always ceased prior to the action of the heart, and the autopsy conclusively proved the animals had died of suffocation. This shows a remarkable difference in the action of the croton chloral and hydrate of chloral; for the latter remedy kills the animals by paralysis of the heart, and the artificial respiration fails to restore the life, while this can very successfully be employed in the case of death from croton chloral. L. has also studied the effect of the croton chloral on men; and here, too, the anæsthesia of the head was complete, while the reflex action of the limbs was not abolished. For this reason L. thinks that the croton chloral might be used with advantage for operations about the head, especially in such cases where the inhalation of an anæsthetic is not well tolerated. As to the administration, L. prescribes the following formula:

℞ Butyl Chloral 5 to 10, 3 one to two; Glycerine 20, 3 v; Water 130, 3 vi. Shake the bottle before use. The patient takes one tablespoonful; after five minutes another, and ten minutes later a third one.

Butyl chloral, in doses of one to three grammes, may be given also for toothache.

12. *The Wet Bandage* vs. *Tartar Emetic*. B. H. WASHINGTON, M. D., of Augusta, Georgia. (*Nashville Journal of Med. and Surgery*, May, 1876.)

Heat kills more pneumonia patients than degenerative changes of lung structure. The chief heat abrogators of to-day are tartar emetic and quinine. The writer says: "If any one will use the wet bandage in the treatment of pneumonia, to reduce the superabundant heat, he will never feel any inclination to try tartar emetic again." To use the bandage, "the patient's clothes should be slit down so that the attendant can change the

bandage every four or five minutes without disturbing him; after the intense heat is well reduced it will not be necessary to change it so often." The temperature of the water at first should not be low enough to shock the patient. With robust patients colder water can generally be used; with delicate patients and children it is best to use tepid water throughout. The bandage should be covered with a dry one, and then no fears need be entertained about damaging the invalid. The urgency of the cough disappears greatly under the use of the bandage. Throughout the treatment the terrible heat of this disease can be kept subdued all the time by the wet bandage. Other measures recommended in conjunction with the water application are quinine and an opiate cough mixture at night. With this therapeutic combination tartar emetic is wholly unnecessary.

13. *Topical Treatment of Chronic Dysentery.* M. DILLS, M. D., of Carlsyle, Ky. (*N. Y. Med. Jour.*, April, 1876.)

The reporter narrates three cases of topical treatment of dysentery, followed by cures. They were of several months standing each. The first case, that of a girl fourteen years old, was of six months duration. She was in a very low condition, with a pulse 130 and scarcely perceptible, skin covered with a clammy sweat. Her body had emitted a cadaveric odor for several days; death seemed inevitable. After etherization, a bivalve speculum was introduced into the rectum and the "mucous membrane was found highly inflamed and studded over with small yellowish ulcers, which, on slight pressure, emitted a colored fluid." Silver nitrate was freely applied to every part of the bowel, as high up as could be reached with the aid of a retractor. This application was followed by an ability to control the bowel. The appetite was improved, strength increased, and recovery of the vital powers was very speedy. Daily injections of carbolic acid solution (one part to eight of water,) were used. In two weeks the patient made a complete recovery. The other two cases were similarly treated and recovery followed.

14. *Sulphurous Acid in Enteric Fever.* J. WESLEY BOTKIN, M. D., Morrisonville, Ill. (*Phila. Med. and Surg. Reporter*, May, 1876.)

Thirty cases were treated with sulphurous acid, in doses ranging from three to fifteen drops, in lemonade, every four hours. Only one patient of this number died; this one patient "was a fragile girl, whose life was gradually wasting away with consumption, but she recovered, then relapsed and died." The writer thinks the acid acts as a specific upon the fever poison, arresting at once its further development and thus exterminates the fever. Amelioration ensues at once, and in a very few days the patients, under the influence of this agent, are convalescent. Within twenty-four hours the tongue becomes moist and commences to clean; the diarrhœa is speedily arrested, the tympanites subsides, the pulse slows and grows stronger, the digestive faculty speedily asserts itself and the patient is soon out of danger.

15. *Treatment of Diphtheria by Clysters.* W. H. VAIL, M. D. (*N. Y. Med. Record*, May 13, 1876.)

One case is reported — "a true malignant case." Patient was twenty-two months old. Refusing to swallow, the rectum was used. Every four hours during the first week the remedies and food, with brandy, were injected together. When they were dejected, the clyster was immediately repeated, with ten drops of laudanum added, and in every instance the second injection was retained. Alvine dejections were normal and well formed. As the severe symptoms abated the lavements were used every six hours. The rectum was used thus for three weeks. Recovery took place.

16. *Anaphrodisiac Properties of Tobacco.* MARTIN-DAMOURETTE. (*Jour. de Méd. et de Chir.*, May, 1876.)

The anaphrodisiac properties of tobacco have long been known, as Foussard has well shown in his work, and have induced its use in the numerous convents of Italy. When the cause of impotence is obscure, it is well for physicians to remember this noxious property of tobacco, as the following cases observed by the author show:

A young man who smoked more than twenty cigars per day, complained of loss of digestive power, weakness, feeble memory and impotence. As he was about to marry, he consulted a physician. The latter, aware of the habits of his patient, ordered him to discontinue the use of tobacco, which was followed by restoration of the genital function.

A young physician had complete genital frigidity, for which he had taken strychnia till he consumed thirty-six centigrammes daily, without either injurious or remedial results. The author found upon investigation that he smoked cigarettes only, but used them constantly throughout the day. His muscular vigor and power of resisting fatigue were thus sensibly diminished; and the author concluded that the incredible tolerance of strychnia was due to profound paresis of the motor nerves, occasioned by the excessive and gradually increasing use of tobacco. By abandoning its use, this patient was perfectly relieved, without resorting to medicine or hygiene.

A young and robust student of the polytechnic school became an inspector at a tobacco manufactory. He soon experienced considerable loss of genic power and finally became impotent. Both the patient and physician agreed as to the probable cause of the disease, and after vainly making trial of other remedies, the inspector of tobacco engaged in another business, when he speedily recovered his generative power.

17. *Treatment of Diabetes Mellitus by Phenic Acid.* (*Bordeaux Medical*, April, 1876.)

In accordance with the latest theories respecting organic ferments, phenic acid is supposed to influence diabetes mellitus by reason of its well known property of antagonizing the action of ferments. Whatever may be the mode of its operation, its administration is readily effected, is unac-

accompanied by danger, and is serviceable when ordered as follows: Equal parts of the alcoholate of mint and phenic acid are mixed, and two or three drops of the solution are taken morning and evening in a cup of any agreeable infusion.

18. *To make Castor Oil Tasteless.* (Amer. Practitioner.)

Squeeze half an orange into a glass, and pour the oil upon it; then, avoiding disturbing the liquids, squeeze the juice from the other half of the orange over the oil. The contents of the glass can then be "tossed off" without the least perception of the oil flavor.

19. *Nitro Glycerine.* A. J. MINOR, M. D. (Amer. Psycholog. Jour., 1876.)

Therapeutists have long ago determined the healing properties of hydrocyanic acid, woorari, veratria, strychnia, aconitia, and very many other terribly destructive agents; but it is only recently that the therapeutic effect of a diminutive *earthquake*, in the shape of nitro-glycerine, has been recorded. Dr. Minor declares that this agent, in astonishingly minute quantities, will quickly develop a violent headache in a person of sanguine temperament; only as much as can be collected on a "pin's point dipped in the liquid, and the pin shaken to remove any adherent particle in the shape of a drop," being required to produce the above named effect within five minutes. Its supposed action is paresis of the cerebral vaso-motors, and its consequent congestion. One writer regards it as being "highly indicated as a prophylactic in epileptic seizures." It differs from amyl nitrate in being more continuous in its action. It seems to be indicated in all spasms of the cerebral vessels. It *has* cured cases of neuralgia, but under what conditions cannot be clearly defined.

20. *Intestinal Atony.* MCSHERRY. (Canada Med. Record.)

For asthenic constipation, the writer recommends ergot and phosphorus; the latter apparently enhances the action of the former. Ergot, it is well known, is a vaso-motor stimulant; vascular contraction follows its ingestion, and this partial anæmiation produces muscular contractions; hence the increased peristalsis. This formula is recommended:

R	Fl. Ext. Secal. Cornut.,	3 vij.
	Acid Phosphorici Diluti,	3 j.
M.	S. Teaspoonful three times a day.	

21. *Odorless Iodoform.*

Ether dissolves iodoform and robs it of its unpleasant odor. Applying this solution of it, leaves it in a uniform SMELLLESS coating on the surface receiving it after the evaporation of the ether. *N. Y. Med. Record* and *Cincin. Clinic* please take notice.

22. *Cold in the Head.* FÉRIER. (Doctor, May, 1876.)

Following prescription recommended to be taken as a snuff. One quar-

ter to one-half may be taken in 24 hours, with assurance of certain relief from coryza:

℞ Hydrochlorate of Morphia, gr. ij.
 Acacia Powder dr. ij.
 Trisnitrate of Bismuth dr. vj.
 Mix well.

23. *Danger of Chloroform in Anal Fissure.* NICAISE. (*Gazette Médicale.*)

Patients with the "intolerable" variety of anal fissure seem to possess a nervous system unusually sensitive to the dangerous effects of chloroform. Forced dilation of the sphincter being the almost exclusive means of treatment of to-day, anæsthetization is necessary. The writer mentions three patients afflicted with fissure, who were chloroformed and very speedily passed into an alarming state of resolution, with thorax immovable and pulse nearly extinct. Dilatation being immediately performed, the patient, in one instance, came too almost at once. In the other two cases, means of restoring had to be continued for a long time. But small amounts of chloroform were used in each instance. The exalted sensitiveness of the nervous system induced by the terrible suffering incident to anal fissure, is the probable explanation of the remarkable cases here alluded to.

24. *Gelseminum.* CARL HERTZKA ET A. JAURASZ. (*Centralbl. f. d. Med. Wissensch.*, 1875, Nrs. 47 et. 31.)

Pain and weakness in both arms, of two years standing, arising from piano playing, were cured by taking 8 drops of tincture of gelseminum thrice daily for three weeks. In cases of neuralgia of the trigeminal, supraorbital, brachial and sciatic nerves, this drug, in 5-20 drops of the tincture, thrice daily, has been successfully used. In some cases it fails utterly, but in a larger proportion of cases of the neuralgias it can be reliably used.

25. *Treatment of Sunstroke with Hypodermic Injections of Quinine.* A. R. HALL, Surg. British Army. (*Practitioner*, 1876.)

All cases of insolation treated with subcutaneous administration will doubtless receive the best chances of recovery. Old army surgeons in British India, where the best opportunity for observing this malady is offered, say the effect of quinine thus applied "may be described as *magical*." Heat is, at first, a vaso-motor stimulant—too long continued in, this stimulation, becomes exhaustion, and then the peculiar condition of the system following is denominated *sunstroke*. The vaso-motor control over the vessels is lost, the cutaneous vessels are turgid with blood, and the sweat glands have apparently lost their power. Theoretically, quinine stimulates the vaso-motors and thus produces capillary contraction; and the peculiar train of morbid circulatory symptoms is broken up, and convalescence sets in. However, whatever the *theory* may be, the practice of putting three to five grains of quinine under the skin is productive of speedy recovery in nearly all cases.

26. *Hyposulphite of Soda in Diphtheria.* TAMBORLINI. (*Raccoglitore Medico.; Jour. de Med. et de Chir. Prat.*, April, 1876.)

The remedy not only tends to diminish the temperature but to destroy the cryptogam of the false membrane. The hyposulphite of soda is given in doses of from 6 to 20 grammes in from 100 to 300 grammes of distilled water, to which 30 grammes of syrup of orange peel are added. At the same time a gargle is administered, containing 40 grammes of the hyposulphite of soda in 400 of distilled water. The diet should consist of eggs, soup and wine. During convalescence the prolonged use of lactate of iron is recommended. Dr. Tamborlini reports numerous successful cases thus treated.

27. *Convulsions arrested by the Sinistro-Lateral Posture.* F. J. BROWN, M. D. (*Practitioner*, 1876.)

Mr. Bader first pointed out to the profession the advantages of putting the patient on the left side when threatened with danger under chloroform inhalations. Knowing the good effects of this procedure, Dr. Brown applied it in case of a man with Bright's disease, in a uremic convulsions, and the latter ceased instantly. Again he resorted to the same expedient in a man seized with unilateral (right) convulsions, whose consciousness and speech were intact: he had been convulsed ten minutes, when the doctor arrived and immediately turned him upon his right side, and the convulsive action ceased in ten or fifteen seconds. What does this mean? Similar successes are greatly desired to confirm a startling fact—if this postural treatment resulting curatively *be* a fact.

III. PHYSIOLOGY.

1. *A Theory of the Dicrotic Pulse.* F. P. HENRY, M. D. (*Phila. Med Times*, April 29, 1876.)

This theory is believed to be novel. It is held that "the pulse is composed of two elements," the *wave* of blood and the corresponding wave of dilatation of the artery, and "the blood-current itself, which travels so much slower than the undulation that it arrives at the wrist during the recoil of the artery. It is the blood current which causes the reascent in the line of the sphygmographic tracing." "The undulation precedes the current;" "it consists mainly of an up-and-down movement of the particles, that is, one at right angles to the current, which movement is intermittent. The current consists of a continuous onward movement of the blood-stream, whose volume is increased at each ventricular contraction." The current moves more slowly than the wave; so that while the latter may precede the former at the wrist by one-half second, or about half a pulsation, at the inner malleolus the current may be so far behind the wave with which it

left the heart that its impulse against the walls of the artery may be exactly synonymous with the impulse of the wave produced by the systole following, so that the two acting in unison, a more vigorous pulsation may be produced.

The theory of Morey, that the dirotic pulse is due to the concussion "received by the blood at the point of division of the aorta into the two primitive iliaes," is denied, for the reason that there is not time for a wave produced by concussion at this point to travel backward and produce the phenomena of dirotism.

IV. PRACTICAL MEDICINE.

1. *Fork in the Stomach — Gastrotomy — Cure.* LABBE. (*L'Union Médic.*, April 27, 1876.)

A young man eighteen years old, desiring to imitate a juggler, swallowed a fork, whose points were held by his teeth. This he did with impunity several times, but finally, in consequence of a sudden movement induced by some pleasantry on the part of his companions, the part between his teeth slipped away and the foreign body lodged itself deeply in the pharynx. Neither he nor his affrighted companions could seize the fork with the fingers. Dr. Lepère managed to seize the prongs with a long pair of polypus forceps, but the patient pushed him violently away in consequence of the pain excited, when the fork buried itself still deeper in the œsophagus. The patient soon became free from pain and even jocose over his predicament.

In a fortnight, intense pain occurred with syncope, after the relief of which appeared a tumor of considerable size over the large extremity of the stomach. Each meal was succeeded by severe pain. A year passed, during which he had intervals of great pain and comparative comfort. Six months of this period were employed in pursuing his ordinary avocation.

At this time, by means of certain exact manœuvres, he could make the prongs of the fork project between the epigastrium and the hypochondrium, so that it could be very distinctly recognized through the abdominal parietes—the act being more successful when the stomach was distended with aliment. His health and spirits were now profoundly affected.

Gosselin, Larrey and Lepère agreed, after consultation, upon surgical interference by the aid of caustics, but could not succeed in producing adhesions between the stomach and abdominal walls with either the paste of Canquoin or Vienna.

After numerous experiments and studies upon the cadaver, Gosselin, Larrey, Lepère, Coyne and Mene-Maurice assisted the reporter in performing gastrotomy, April 9.

After anæstheziation by chloroform, L. incised each layer separately, to the extent of 4 ctm., in a line extending parallel to the false ribs of the left

side and 1 ctm. distant, and terminating in the imaginary line uniting the cartilages of the ninth ribs. Six successive applications of caustic had been previously made in this locality. The wound was kept open and the visceral and parietal layers of peritoneum were found ununited.

The anterior wall of the stomach was seized and drawn somewhat into the wound by a pair of forceps, then a loop of thread was passed through the fold and the latter brought into firm apposition with the lips of the abdominal wound. Eight points of suture were then made with strongly curved needles, through the stomach and abdominal walls—the point of each needle entering the stomach from without inward and escaping in an inverse direction. Thus the visceral and parietal layers of peritoneum were firmly apposed to the extent of 1 ctm. almost the entire periphery of the wound.

The stomach was then incised, the foreign body recognized (the prongs fastened in a mass of spongy tissue to the left of the wound in the greater curvature), and after exploration with a pair of long polypus forceps, the fork was seized and readily extracted.

Peritonitis was threatened, but a collodium "cuirass" upon the abdomen, with iced champagne internally, was followed by such improvement that in five days solid aliment was ingested. The cure is now complete, save for the existence of a rapidly contracting gastric fistula, which scarcely admits the little finger.

2. *Rôle of the Buccal Cavity.* GALVAGNI. (*Annali Univ. di Medic.*, Jan., 1876.)

Some phthisical patients are conscious of a rôle in their own persons, which they refer to the base of the neck, toward the fourchette of the sternum, and of which they sometimes complain bitterly. This little rôle is often perceived by persons who approach them and who are intimately associated with them.

Physicians can readily appreciate this sound by bringing the ear near the mouth of the patient. It is small, fine and dry, and is caused by the breaking of one or more small bubbles. It is sometimes audible during inspiration, more often it coincides with the two periods of respiration. Sometimes, though rarely, auscultation of the mouth reveals ronchus and whistling.

At first, one is tempted to localize these sounds in the upper part of the trachea, because of their clearness and often of their intensity; a more attentive examination, however, discloses the fact that they arise more deeply in the lungs. Indeed, if the trachea be examined by the ear with the patient's mouth closed, nothing is heard. The sound reappears as soon as the mouth is reopened. This shows that the sound is engendered deeper than the trachea, and that it is transmitted by the column of air. Beside, when auscultation is made comparatively of the trachea and different parts of the thorax, the sound is discovered in the latter having the same characters as that in the mouth; the bubbles are only a little finer,

dryer and somewhat more high-pitched in the latter case. This is due to the influence exerted by the head cavity upon the sound which it transmits. It is for this reason also that the sound is more distinctly audible near the mouth. Not only is this sound reinforced by the cavity of the mouth and fauces, but also, if it be central in origin, it may be marked to thoracic auscultation by the interposition between it and the ear of pulmonary bubbles full of air.

G. has not only discovered this rôle in phthisis, but also (rarely) in pneumonia, in four cases of capillary bronchitis, in one case of pleural exudation, and in cases of pulmonary vomicae. He attributes to it a very small diagnostic value, but thinks it might be of service in cases of incipient pulmonary phthisis, when thoracic auscultation gives unsatisfactory results. Its greatest value would appear to be in veterinary practice, where thoracic auscultation is often surrounded with great difficulties.

3. *Treatment of Variola by Exclusion of Solar Light.* WATERS AND GADDESSEN. (*Abeille Médic., Lyon Médic.*, May 21, 1876.)

The two authors first published, in 1870 and 1871, their experiments in the treatment of the eruptive fevers by the exclusion of solar light—covering completely the shutters and windows of the patient's chamber with opaque material and lighting the apartment solely by a candle or oil lamp. They concluded that if the daylight were completely excluded from the chamber of the variolous patient the disease became incontestably less grave, the skin affection was arrested at the vesicular stage, pus was not formed, the interspaces between the variolous vesicles did not inflame, crusts did not form, the pain was diminished, the pruritus became insignificant and the odor diminished. *But, if during the period of primitive fever or eruption, the light was admitted to the chamber, even for a few instants, grave consequences followed, and the good effects previously produced were sometimes neutralized.*

Dr. Patin, of Orse, made trial of this treatment in 1870 and 1871, in the cases of seven patients attacked during an epidemic, with encouraging results, as will be seen from the following details:

I. Mme. E. L., non-vaccinated. Delivered on the evening of May 26, 1871. Attacked with confluent variola the next day. May 31, convalescence; fever and eruption arrested.

II. The daughter of this lady, fifteen days old, had confluent variola, June 8. Treatment by obscurity. On the fifth day there was great improvement; but on the 7th day the mother took her out of the darkened chamber to show her to a neighbor, contrary to orders. The variola recurred with intensity, and the child died in the night.

III. Mme. de V., aged fifty-seven years, vaccinated, confluent variola May 31; obscurity June 8; convalescence and no traces of variola.

IV. Miss E. B., aged twenty years. Sent home to her friends June 29th with commencing variola, (very violent fever, rachialgia, variolic pustules upon the upper lip.) Complete obscurity; defervescence in twenty-four hours. For nine days she took supper with the family, after

night-fall. At the expiration of this period she was as "fresh looking as if nothing had occurred."

V. Miss L. G., aged eighteen years. Confluent variola five days after, July 12. Obscurity; convalescence in eight days, without any facial appearances of disease.

VI. Mr. M. L., June 29, confluent variola, (not recognized at the outset.) Repeated bleeding and purging, and finally general prostration with administration of the last sacrament. After a fortnight of obscurity he was cured without facial deformity, but there was suppuration upon lower extremities, resulting from prolonged use of sinapisms.

VII. M., non-vaccinated infant, one year old. Discrete variola after three days invasion. Obscurity; cure in eight days, (having taken no medicine,) without appearance of cicatrices.

These cases are too few, suggests the reviewer, for the purpose of demonstration. He inquires, also, whether it would not be well to experiment with other eruptive fevers, puerperal peritonitis, septicaemia, etc., as well as to investigate the history of these and similar disorders in the localities where the Arctic night occurs. The treatment does not preclude proper medication.

4. *Diagnosis of Fissures of the Anus in Children at the Breast.* MARBOUX.
(*L'Union Médic.*, No. 61.)

Three affections—hæmorrhoids, polypus of the rectum, and fissure of the anus, are accompanied by pain and hæmorrhage, in connection with defecation. Exploration of the anus is indispensable in order to arrive at a diagnosis. This should be performed with great delicacy, so as not to increase the rent (when it exists), and especial care should be taken in completely separating the folds of the mucous membrane, for fissure is always found between two folds, and, when small and recent, is liable to be overlooked in a superficial examination.

Polypus of the rectum is ordinarily seen when the anal opening is examined at the moment of defecation, in the form of a small, red, mamelonnated enlargement, somewhat resembling a raspberry. External hæmorrhoids are readily seen, but then the folds of membrane should always be separated for inspection, as fissure may also be present. Internal hæmorrhoids may also be seen through the anal orifice in the efforts of defecation; and sometimes are with difficulty, and only after several examinations, dissociated from polypus. If exploration of the anus gives negative results, (neither external hæmorrhoids nor fissure) and there are general symptoms pointing to rectal lesion, the diagnosis is between internal hæmorrhoids and polypus beyond recognition by ordinary exploratory procedures. Hence other means of recognition must be adopted.

An important sign of fissure is the unusual resistance encountered by the finger in overcoming the sphincter. When the finger has been previously well oiled, and is introduced as gently as possible, and yet the infant

cries with pain, the existence of fissure may almost be affirmed, and the characteristic lesion is almost always encountered.

5. *Successful Capillary Puncture of the Liver — Urticaria.* LAVERAN.
(*Lyon Médic.*, No. 21.)

L. reported to the Medical Society of the Paris Hospitals a case of successful puncture of the liver, followed by urticaria. Lereboullet assigns the urticarial symptoms to penetration of the contents of the invaded cysts into the peritoneal cavity. But Labbé had a patient with hydatia cyst of the liver, who suffered from urticaria *before* puncture was tried. Urticaria is frequent in all disorders of the gastro-hepatic apparatus in icterus by retention, and in any condition of irritation of the splanchnic nerves. Teauzoni has noticed its appearance after the application of leeches to the neck of the uterus in hysterical patients. Leopold, after leeching over the sacrum. Damaschino has seen urticaria in the cases where puncture had not completely emptied the cyst.

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Original Communications.

**OVARIOTOMY IN A PATIENT SIXTY-FIVE YEARS
OF AGE, WITH COMPLETE RECOVERY.**

BY C. RICHARDS, M. D., JOLIET, ILL.

Mrs. K., aged sixty-five years, in the early part of 1872, discovered a tumor about the size of a small orange in the left inguinal region. It enlarged slowly until August, 1874, when she could not longer endure the severe pressure upon the abdominal viscera. In August, 1874, she was tapped, and a thin whitish colored fluid was evacuated, weighing thirty-four pounds. In May, 1875, she was again tapped; again in August, 1875; again on the 15th of February, 1876, when sixteen pounds of fluid were removed; again March 4th, 1876, when twenty-three pounds were removed; again March 17th, 1876, when fifteen pounds were removed. On April 6th, the tumor and fluid were removed together, and weighed about twenty-three pounds. It will be thus seen that the time between each tapping gradually decreased. The patient was of lymphatic temperament, and prior to a short time before the operation had enjoyed good health. But after the last tapping she rapidly failed, both in strength and flesh; the stomach becoming very

irritable. The operation was performed at Plainfield, Ill., April 6th, 1876, in the presence, and with the assistance of the following medical gentlemen: Drs. R. J. Curtiss, F. C. Mitchell, and Wm. M. Richards, of Joliet, and Drs. D. W. Jump and A. J. Perkins, of Plainfield, Ill. The patient was brought fully under the influence of ether, and the bladder was then emptied of its contents. A small incision, about three inches in length, was made in the linea alba. The finger was then introduced, and what adhesions could be reached were broken up. The sound was next introduced for the purpose of exploration, and several slight adhesions were discovered at different points over the abdomen, which were easily removed. One somewhat more extensive and firm was found in the right inguinal region. This required separating by the fingers. The incision was now enlarged to about nine inches, and the tumor found to be multilocular, chiefly made up of two very large cysts and a great many smaller ones. The larger cysts were now tapped with a large trocar, and the fluid, which was of a yellow color and somewhat viscid, rapidly drawn off. Not much solid substance was encountered. The sac was then seized and drawn out. The pedicle, which was of medium length, was then tied firmly with a strong silken ligature. The clamp placed on the pedicle below the ligature and the sac cut away. The incision was then closed by deep silver sutures, inserted so as to include the skin and peritoneum, and by superficial silk ligatures, inserted so as to approximate the cutaneous edges. Adhesive straps were applied, and a cotton compress over the wound was held in position by a broad flannel bandage. The pulse being weak, an injection of brandy and water was given *per rectum* and the patient put to bed. The temperature of the room during the operation was kept at about 80° Fahr. The following is a correct record of the symptoms and treatment:

April 6, 1876, 12:25 P. M., pulse 100, temperature normal; 1:25 P. M., pulse 117, temperature normal; 4 P. M., pulse 98, temperature 98°; 7 P. M., pulse 99, temperature 98 $\frac{4}{5}$ °; 12 P. M., pulse 102, temperature 98°. *Treatment* — 2:15 P. M., morphine, gr. $\frac{1}{4}$, atropia sulph., gr. $\frac{1}{60}$, hypodermically; 5 P. M.,

injection of beef tea and brandy; 5:30 P.M., morphine, gr. $\frac{1}{4}$, and atropia, gr. $\frac{1}{60}$, hypod.; 9:40 P.M., morphine, gr. $\frac{1}{4}$, and atropia gr. $\frac{1}{60}$, hypod.

April 7, 1876, 2 A.M., pulse 100, temperature $98\frac{2}{3}^{\circ}$; 6 A.M., pulse excited, temperature $98\frac{3}{5}^{\circ}$; 12 A.M., pulse 98, temperature $98\frac{3}{5}^{\circ}$; 8 P.M., pulse 100, temperature $98\frac{4}{5}^{\circ}$; 10 P.M., pulse 100, temperature 99° . *Treatment*—12:30 A.M., beef tea, o. j., brandy $\bar{\text{z}}$ j., by injection; 4:30, morphine and atropia; 6:30, beef tea, brandy and milk; 10 A.M., action of heart being weak, two drops of tinct. digitalis were given and continued every two hours until the heart's action became strong and steady. 10:30 A.M. beef tea, o. j., brandy $\bar{\text{z}}$ jss., quinia, gr. x. M. By injection. 12:30 P.M., morphine, gr. $\frac{1}{4}$, atropia, gr. $\frac{1}{60}$, hypodermically; 4:30, morphia and atropia, as above; 5, beef tea, brandy and milk; 9 A.M., morphia and atropia; 10, beef tea, brandy and milk.

April 8. Symptoms: 12:45 A.M., pulse 106, temperature $99\frac{4}{5}^{\circ}$; vomited about a pint of dark colored matter; 4 A.M., pulse 114, temperature $100\frac{1}{5}^{\circ}$; 11:30 A.M., pulse 106, temperature 99° ; vomits; 12 P.M., bowels moved; 12:30, vomiting of mucus with bile; 6, pulse 110, temperature 100° ; vomited fetid matter, tinged with bile; bowels moved slightly and without pain; 7:40 P.M., pulse 108, temperature 99° ; 9:45, bowels moved without pain; 10:30, pulse 100, temperature $98\frac{1}{2}^{\circ}$. Up to this time patient has had but little disturbed sleep; at times delirious; tongue dry with a brown center. Bismuth gr. v., pepsine gr. x., every four hours. 1 P.M., beef tea, brandy, milk and quinine, by injection; 2:30, morphine and atropia; 6, beef, milk and brandy; 9, beef, milk and brandy; 11:30, morphine and atropia.

April 9. 1 A.M., beef tea, o. ss., milk o. j., brandy $\bar{\text{z}}$ j.; 6, morphine and atropia hypodermically; 6:30, beef tea, brandy and milk; 10, morphia and atropia; 10:45, beef tea, brandy and milk; 3 P.M., stomach irritable; milk $\bar{\text{z}}$ j., aqua calcis $\bar{\text{z}}$ ss. every hour; 5, morphine and atropia; 10, morphine and atropia, hypodermically, brandy and water in connection with lime-water and milk; stomach less irritable.

April 10. 1 A.M., milk in large quantities with half ounces

lime-water; 4, lime-water, milk and brandy; no nausea. *Symptoms*—3 A. M., tongue moist, pulse 90, temperature 98°; has rested well during the night. 6 A. M., pulse 90, temperature 98°; milk and aqua calcis; desires food. 1 P. M., beef, bread and butter retained well, temperature normal, pulse 99.

April 11. 1 A. M., pulse 96, temperature 98°; did not rest well before this time; morphia and atropia were given with relief of symptoms. 8 A. M., pulse 90; temperature 98°. Egg and toast for breakfast; relished her food. 1:30 P. M., pulse 96, temperature 98°. 9:30, pulse 88, temperature 98°.

April 12. 7 A. M., pulse 90, temperature 98°. Rested well during the night. 2:30 P. M., pulse 100; temperature 99°.

April 13. 8:40 A. M., pulse 94; temperature 98°. Eggs, toast and tea; appetite good. 8 P. M., pulse 90; temperature 98½°.

April 14. Pulse 86; temperature 98°; rested well during the night. At 9 P. M. temperature 94°; pulse 90. Soreness about pedicle.

April 15. Pulse 84; temperature 98°. Slept well during the night; appetite good. Pedicle came off on the 16th, and patient went on to a rapid recovery. At present, June 2, 1876, she is enjoying as good health as could be expected. In the treatment of the pedicle little more was done than keeping the parts clean, applying carbolyzed glycerine at the time of each dressing. Drs. Jump and Richards remained with the patient from the time of the operation to the separation of the pedicle, which took place on the tenth day after the operation—for the success of which I am largely indebted to all who assisted me.

A CASE OF SUPPOSED UTERINE CANCER, IN WHICH A SPONGE WAS RETAINED IN THE VAGINA FOR TWO YEARS.

By EDWARD W. JENKS, M.D.,

PROFESSOR OF DISEASES OF WOMEN, ETC., DETROIT MEDICAL COLLEGE.

I was summoned, not long since, to see a patient who was

supposed by her friends and medical attendant to have cancer of the uterus, from a sanious vaginal discharge which had been profuse and offensive for over a year. It is but just to my friend, who called me in consultation, to say that he had formed no opinion of the case from physical examination, as he postponed that until I saw the patient with him.

The patient, Mrs. —, sixty-two years of age, stated that she had ceased menstruating twelve years previous; that she was the mother of several children, and had always possessed good health until the present difficulty. The discharge she said was not only very offensive, but exhausting and very irritating. Upon examination the external genitalia were seen to be deeply excoriated and the inner part of the thighs in a similar condition. Carrying a finger into the vagina, I could distinctly feel at the uterine extremity a soft immovable mass, unlike any morbid growth I had ever before encountered. I then inserted a speculum and saw that it was a sponge quite firmly held in position. A portion seemed almost encysted, so that the force required for its removal by dressing forceps tore it into pieces. As the sponge was removed the atrophied, uterine neck, and the vagina surrounding it, were seen to be ulcerated and bleeding surfaces.

The patient informed me that she had formerly been troubled with "falling of the womb," for which she had been in the habit of having sponges inserted; that the last one was put in by a physician two years before, which she was quite sure she had afterwards removed. Soon after this she began to have the offensive discharge which occasioned my visit. It is probable that she may have removed a portion of the sponge that was inserted, or may have removed none, but thought she had. Only for the peculiar condition of the neck of the uterus and the vagina, occasioned by the senile changes of these organs, it could be hardly possible for the sponge to be so firmly retained such a length of time in the superior portion of the vagina; and at no other time of life than after the menopause, could a foreign substance like a sponge be in constant apposition with the neck of the uterus for two years and produce such slight derangement. It is needless to add

that with the removal of the sponge the patient made a rapid recovery with no other treatment than the use of detergent vaginal washes.

A CASE OF SUPPOSED PIGMENTARY DEPOSIT IN THE CORTICAL SUBSTANCE OF THE ENTIRE ENCEPHALON.

By A. W. HAGENBUCH, M. D.,

ASSISTANT PHYSICIAN COOK CO. INSANE ASYLUM.

Magdelene Fischer, German, aged twenty-four years, single, was admitted to the asylum June 3d, 1875, with acute mania, which she had had for seven weeks, although she was thought by her friends to have acted peculiarly for several months prior to this period. Upon admission she was well nourished; heart and lung sounds normal; she was violent and very refractory, refusing, although perfectly able, to walk to her ward. After a few days she became somewhat melancholic, but occasionally was very violent, once even attacking one of the attendants, fighting desperately. She gradually became very quiet, and would sit for hours in one position and speak very little. Occasionally she sang snatches from the operas. She soon subsided into a profound stupor, sitting for hours in one position and never speaking. After a few weeks she gradually grew worse, and about March 1st, 1876, she began voiding her feces and urine in bed. There was not a continuous dribbling of urine or discharge of feces, but perfect evacuations several times in the day. She would sit for a half day with her head resting on her knees, and had to be fed and cared for like a child. She took to bed about April 13th; her physiognomy was remarkable, her face was a perfect blank, her eyes had an expressionless look about them, such as is rarely seen; she reminded me very strongly of a pigeon after both cerebral hemispheres are removed. A loud noise in her immediate neighborhood would startle her; she would make one or more sudden, spasmodic movements, then gradually subside to her

former condition. She became very much emaciated. She seemed to be totally unconscious of pain, even a strong electric current would be born without the slightest manifestation of pain, although reflex movements seemed to be perfect, as was proven by irritating the soles of her feet; they would be immediately and spasmodically drawn upwards and removed from the cause of irritation. The case was regarded by me as a typical one of acute mania, terminating in complete dementia. The last few days of her life she had dysphagia; there seemed to be some paralysis of the pharyngeal muscles. During the acute attacks the temperature was 102° to 105° F.; during the intervals, 99° to 101° F.

She died May 2d, 1876. A *post mortem* examination was made 14 hours after death. The scalp was found very thin, and so distensible that the anterior flap might have been removed and the posterior one could have been easily stretched so as to take its place. The skull proper was thick — no irregularities upon its internal surface; dura mater very thick and pale; arachnoid about normal; pia mater very much thickened and congested, some of the bloodvessels having a tortuous course and resembling varicose veins. Weight of entire encephalon (including membranes) $43\frac{1}{2}$ ounces. The external surface of the entire brain was very much darker than normally; it was almost black.

Upon removing a portion of the upper surface of the brain corresponding to the *centrum orale minus*, the knife met with some resistance, producing a grating sensation to the hand, and with an audible sound. Particles of sandy substance had been deposited in the substance of brain. The cortical layers were almost black. Unfortunately the specimen was not examined microscopically. I am inclined to think the deposit was pigment. This deposit was found in the gray substance of the entire encephalon and spinal cord as low down as examined, about the fifth cervical vertebra, and sclerotic coats of both eyes. All the other internal organs were apparently healthy, with the exception of a small tubercular deposit in the apex of right lung.

THE USE OF CROTON CHLORAL HYDRATE IN PHOTOPHOBIA.

By P. OWEN-JONES, M.D.

(Read before the Chicago Medical Society, June 19, 1876.)

[Dr. Owen-Jones remarked in beginning that the cases here reported were treated in Guy's Hospital, London, under the direction of Mr. Bader.—Ed.]

(1) Ann B., aged 18, suffering from syphilitic corneo-iritis of both eyes with photophobia, commenced to take grs. v. doses of croton chloral hydrate three times a day, on the 24th Dec., 1873. A solution of daturin (gr. j. to $\bar{3}$ j. of water) one drop to be dropped into both eyes every ten minutes for an hour each evening. Eight days after the photophobia had greatly diminished, and on the twenty-third day, Jan. 16th, 1874, she was discharged cured.

(2) Mary C., aged 11, suffering from pannus with granulations and photophobia, commenced to take grs. v. of croton chloral hydrate three times a day, on Jan. 16th, 1874. A solution of daturin (gr. j.— $\bar{3}$ j. of water), one drop twelve times in an hour each evening. On the seventh day there was no improvement, and the dose was increased to grs. x. three times a day. On the fifteenth day there was a very slight improvement in left eye only. The dose was increased to grs. xij. On the twenty-sixth day the drops were omitted and the dose increased to grs. xv. On the twenty-eighth day, there being no improvement, the medicine was omitted and the lids were touched with greenstone seven or eight times a day.

(3) Mary S., aged 19, suffering from syphilitic corneo-iritis with great photophobia, commenced to take grs. x. doses of croton chloral hydrate three times a day, on Dec. 24th, 1873. A solution of atropine (grs. ij.— $\bar{3}$ j. of water) twelve drops in one hour each evening. On the thirteenth day the photophobia had almost subsided. On the nineteenth day the photophobia had entirely gone.

(4) Florence B., aged 8, suffering from syphilitic corneo-iritis with epiphora and photophobia, commenced with grs. v. doses three times a day, on Jan. 13th, 1874. A solution of atropine (gr. j.— $\bar{3}$ j. of water) six times in an hour each evening. On the fourth day there was a very marked improvement, which continued up to the twenty-fourth day, when a dense fog caused a return of the photophobia. On the thirty-second, patient was discharged cured.

(5) Celia S., aged 24, suffering from closed pupil, ciliary redness and great photophobia, trusion—1. Commenced with grs. x. doses three times a day, Jan. 13th, 1874. A solution of atropine (grs. iv.— $\bar{3}$ j. of water) to be used morning and evening. The left eye was worse than right. On the fourth day there was a slight improvement in photophobia. On the tenth day patient was able to look at the light with only slight discomfort. On the fourteenth day there was no photophobia in right eye. On the eighteenth day the photophobia had ceased in both eyes.

(6) Mary D., aged 15, suffering from pannus, with granulations and photophobia, commenced to take grs. x. doses three times a day, a solution of atropine (grs. ij.— $\bar{3}$ j.) to be used three times a day, Jan. 21st, 1874. On the second day there was a slight improvement. Drops omitted. On the nineteenth day there was a great improvement in photophobia. Dose increased to grs. x. four times a day. On the twenty-first day the dose was increased to grs. xv. four times a day. On the twenty-seventh day the photophobia had ceased and the medicine was omitted. The lids were ordered to be touched with greenstone three times a day.

(7) Ellen B., aged 7, suffering from corneitis with excessive photophobia, commenced to take grs. viij. doses three times a day, Feb. 5th, 1874. On the fourth day there was a marked improvement in photophobia. On the eighth day the photophobia suddenly returned as bad as at first. The medicine was continued for several days, but without producing any good result.

(8) Clara S., aged 15, suffering from corneo-iritis with excessive photophobia, so that it was necessary to keep her entirely

in the dark, commenced to take grs. x. four times a day, Feb. 10th, 1874. On the second day there was already a slight improvement. On the third day patient complained of a bad headache. On the sixth day the pain in head was better. Medicine was reduced to grs. v. There was a gradual improvement up to the twentieth day, when patient left the hospital.

(9) Mary B., aged 49, suffering from closed pupil with internal neuralgia of forehead, commenced to take grs. xv. doses three times a day. On the fourth day the dose was increased to grs. xx., but without producing any marked alleviation from pain.

If now we look at the results of these cases, we see that Nos. 1, 3, 4, 5 and 8 were markedly benefitted by the drug, and No. 6 to a great extent. These cases, Nos. 1, 3, 4, 5 and 8, were the subjects of well marked congenital syphilis. All the cases were the worst I could pick out from among the out patients attending at the hospital. It is right perhaps to state that most of these patients came from miserable dirty homes, where they were probably only half fed; so that the good food and nursing of the hospital may have had something to do with the result.

As regards the dose of the medicine, it will be seen that various quantities were given, the smallest being grs. v. three times a day, and the largest grs. xx., without producing, as far as I could detect, any unpleasant symptom. The only complaint was the exceedingly nasty taste of the drug, which was given combined with syrup of lemons, about $\mathfrak{z}$ iij. to $\mathfrak{z}$ j. of water, in which it was found to be more soluble than in water alone. In only one patient, No. 6, did it cause any feeling of sleepiness. Dr. Bader concluded, from the result of these cases, that it was only in diseases of the eye which were due to syphilis we could expect any marked and permanent benefit.

TWO CASES OF OVARIOTOMY.

BY A. REEVES JACKSON, A.M., M.D.,

SURGEON-IN-CHIEF OF THE WOMAN'S HOSPITAL OF THE STATE OF ILLINOIS; LECTURER
ON DISEASES OF WOMEN IN RUSH MEDICAL COLLEGE, ETC.

(Read before the Chicago Society of Physicians and Surgeons, June 12, 1876.)

CASE I. — *Polycystic Ovarian Tumor complicated with
Ascites — Ovariectomy — Death from Exhaustion.*

Mrs. H., thirty-two years of age, married, and the mother of two children, the youngest twenty-two months old, rode a long distance on a cold day in April, 1872. She took a severe cold and noticed in two or three days an enlargement of the lower part of the abdomen, not greater on one side than on the other. Three months later, Dr. C. T. Cory, of Grant county, Wis., after examining the case, pronounced it one of ovarian dropsy. This opinion was subsequently confirmed by Dr. Darius Mason, of Prairie du Chien. Subsequently, in December, the case came under the care of Dr. J. B. Cory, of Patch Grove, Wis. He found the abdomen excessively distended, and fluctuation evident in every part. There was partial resonance in both flanks and in the epigastric region; dullness everywhere else; change of posture produced no change in this respect. The uterus was slightly prolapsed, otherwise normal. The patient suffered from dyspnoea, digestion was impaired, and she was greatly emaciated.

In order to give present relief, as well as to complete the diagnosis, the patient was tapped by Dr. Cory, through the abdominal wall, January 2, 1873. He removed fifty pounds of "clear, limpid, amber-colored fluid, free from albumen." After the removal of the fluid Dr. Cory failed to discover any tumor or sac. The patient recovered rapidly. The fluid re-accumulated slowly, but not to such an extent as to occasion distress.

April 1st, following, the patient discovered a tumor in the right iliac region about the size of an orange, hard and moveable. It grew rapidly, so that in two months it was as large

as a child's head, and reached almost to the umbilicus; by the last of August it had approached the edge of the ribs. At this time the uterus was drawn up so that the os could be reached only with much difficulty.

She now grew rapidly worse. She had several attacks of peritonitis, suffered greatly from dyspnœa, had a quick pulse and lost flesh.

On the last of January, 1874, her symptoms were so distressing that she was again tapped, at her earnest solicitation. Six pounds of thick gelatinous amber-colored highly-albuminous fluid were removed. The operation was followed by a severe attack of peritonitis, which lasted eighteen days.

I was engaged to perform ovariectomy at the patient's home, and appointed February 25th, as the time. I arrived there very early on the morning of that day, and learned from Dr. Cory that on the evening of the 23d the patient had fallen asleep near an open window, and, that as a result of this act of imprudence she was now suffering from a very severe local peritonitis.

I found her in an exceedingly unfavorable condition. She had a good deal of pain in the left iliac region, attended with nausea and vomiting, tongue and skin dry, pulse 130, temperature 103°. I was very loth to operate under such unpromising circumstances, but as the operation appeared to offer the only possible chance of saving the patient's life, I agreed to submit the decision of the question to the medical gentlemen whom Dr. Cory had invited to be present. These were Drs. Darius Mason, John Conant, T. W. Howes, H. P. Gritner, F. R. Millard, and Thomas Chambers. The attending physician, Dr. J. B. Cory, and Louis Freidericks, medical student, were also present. On consultation with these gentlemen it was decided that the operation should be proceeded with, which was accordingly done.

The patient having been etherized, an incision three inches in length was made in the linea alba and quickly deepened to the peritoneum. When the bleeding ceased, the peritoneum was opened and several pounds of ascitic fluid escaped. The cyst, of a pearl-blue color, then came into view, and a prosta-

tic catheter passed over its surface showed the existence of tolerably dense adhesions on both lateral aspects. These were broken down and a large trocar pushed into the most prominent part of the cyst. Its contents were too viscid and dense, however, to flow through the cannula. The latter was therefore withdrawn, the opening in the cyst wall enlarged and the hand passed into the interior of the growth. The contents of the latter were then scooped out by the hand, the patient being at the same time turned upon her side in order to prevent any of the cystic fluid from entering the abdominal cavity. The tumor was found to be adherent by nearly its entire posterior surface to the intestines and pelvic walls. Many of these were separated by scissors, and in several places portions of the cyst wall were cut out and the inner portion peeled off, leaving the united peritoneal surfaces together. There was a great deal of hemorrhage, and much time was consumed in controlling it. The cyst was found to spring from the right ovary. The left ovary was also diseased and was removed. As it seemed almost inevitable that there would be some oozing of blood from the torn surfaces after the closure of the wound, a drainage tube of india rubber was placed behind the uterus leading from Douglass' cul-de-sac through the vaginal wall into the vagina. The wound was then closed with sutures of silver wire placed half an inch apart, and the dressing completed by adhesive strips, a compress of folded flannel, and a flannel bandage surrounding the body. The weight of the tumor was thirty-two pounds.

The operation lasted two and a half hours, and during its continuance the patient several times became very much depressed, and the pulse quite imperceptible at the wrist. At its conclusion she was placed in bed, had bottles of hot water about her person, and brandy was freely given.

At 2 o'clock P. M., half an hour after she was put to bed, her pulse was 140, small and thready. She did not rally at all. At 7 o'clock on the following morning, after a restless, sleepless night, her pulse was 150, respiration 10, and temperature 105°. She began vomiting a very dark, ropy mucus, and, sinking rapidly, died at 11 o'clock A. M.

CASE II.—*Polycystic Tumor of Right Ovary—Ovariectomy—Symptoms of Septicemia—Recovery retarded by Parotitis and Phlegmasia Dolens.**

H. G., a resident of Aurora, Ill., married, aged forty-nine years, consulted me March 1, 1874, relative to an enlargement of the abdomen, accompanied with great irritability of the bladder and urethra. She gave me the following history: Menstruation commenced at thirteen, the function being irregular down to the age of thirty-four, when she married. It then became regular, and continued so to appear until October last, when, after a few months of irregularity, it ceased altogether. About eighteen months ago she first noticed an enlargement of the abdomen. For the first year the swelling seemed to appear and disappear alternately, but during the past six months it has been permanent, and has steadily increased in size.

On examination, I found the abdomen tense and as large as at full term of pregnancy; there was no fluctuation and no perceptible tumor; the uterus was in a state of extreme retroversion. During the next four months her strength rapidly failed and her size greatly increased. In July I took her to Chicago for consultation with Dr. Jackson. He decided that there was a tumor, probably ovarian, and advised waiting until further development should make operative interference necessary, when ovariectomy should be performed.

She continued to enlarge, and the lower extremities became œdematous; she also complained of pain in the left side, referred to the region of the heart and left lung.

On October 27th, in consequence of her extreme suffering, I removed, by tapping, sixteen pounds of fluid having the color and consistence of new cider. On the withdrawal of the fluid, a tumor extending from the bones of the pelvis on the right side across the abdomen to within two inches of the bones on the left side, was clearly perceptible. Its density varied in different parts, being softest on the left side. After

* The account of this case is furnished by the attending physician, Dr. Jennie G. Brown, of Aurora, Ill.

the operation the uterus resumed its normal position, and the patient was much relieved for several weeks. The fluid re-accumulated, however, and ovariectomy having been decided upon, the operation was performed on December 10th, 1874, by Dr. Jackson, in the presence, and with the assistance of Drs. Jennie G. Brown, J. H. Etheridge, W. C. Lyman, Sibelia F. Baker, Alex. Sterl, R. J. Patterson, Huntley, Brigham, Bartlett, Hawley, Hurlbut and Robbins.

The Operation.—The patient having been fully anæsthetized with the bichloride of methylene, administered by Prof. Etheridge, an incision was made in the linea alba, extending from a point about two inches below the umbilicus to one about the same distance from the pubis. This was deepened until the peritoneum was brought into view. All bleeding having ceased, the peritoneum was lifted by a tenaculum and slit upon a director nearly the entire length of the external incision, exposing the wall of the cyst. Adhesions were then searched for by means of a sound swept over the surface of the tumor, and afterwards by the hand previously dipped in artificial serum,* kept at a temperature of 98°. Several were found on the front and lateral aspects of the tumor, and being slight, were broken down by the hand, but some more extensive and of a firmer character, discovered posteriorly, were left to be dealt with subsequently. A trocar was now passed into the upper part of the most prominent cyst, giving exit to a dark amber-colored fluid, closely resembling that which had previously been removed by the tapping. The first cyst having been evacuated, the trocar was re-introduced through the cannula and passed onward, tapping successively others, the contents of each presenting differences in color and consistence. The tumor not being sufficiently reduced in size by this means, the cannula was withdrawn and the opening into the cyst wall enlarged sufficiently to enable the operator to introduce his hand into the interior of the tumor; he then broke down the intervening walls between a number of other

* Made by mixing the whites of two eggs with a tablespoonful of common salt, and adding two quarts of water,

cysts, and permitted their contents to escape. This, too, failed to lessen the size of the growth sufficiently to allow its extraction, and the incision was prolonged to the left of, and about one inch above, the umbilicus. The tumor was carefully brought through the incision, and discovered a number of adhesions attaching it to the intestines and omentum. These were separated by fingers and scissors, and the tumor was finally only held by its pedicle, which was seen to arise from the broad ligament of the right side. The pedicle was temporarily clamped and the cyst cut away; it was subsequently transfixed by a needle in a fixed handle at a point about an inch from its cut extremity, its two halves tied separately with strong silk ligatures, the ends of which were cut off closely, and the pedicle dropped back. The left ovary was found to be diseased, and adherent to the cyst. It was removed. The bleeding points of the divided adhesions were secured with fine silk ligatures, five in number, their ends cut short.

The appearance and condition of the uterus were very peculiar. It was of normal size and its fundus was studded with a number of subperitoneal growths varying in size from a grape-seed to that of a large currant, rough and unsymmetrical, and as hard as stone. They seemed to be small fibroids which had undergone calcæous degeneration. They were not disturbed.

A drainage tube of india rubber was passed from Douglas' cul-de-sac through the posterior vaginal wall, and left *in situ*. The abdominal cavity was carefully cleansed of blood and cystic fluid by repeated washings of warm carbolized water, and sponged until quite dry. A flannel compress, wrung out of warm water, was placed over the intestines while the needles were passing through the lips of the wound; which was closed with nine silk sutures. The dressing was completed by broad strips of adhesive plaster, over which was placed successively a compress wet with carbolized water, and a layer of cotton batting, the whole being finally surrounded with a flannel bandage.

The patient was then placed in a well-warmed bed, with

hot water bags near her feet, and lightly covered with blankets. She soon reacted from the effects of the operation and the anæsthetic. The latter acted admirably. The patient was under its full influence two hours and twenty-six minutes. She had no vomiting during or after the operation, although for several days there was much nausea.

Progress.—Dec. 8, P. M. Pulse 88, skin moist, temperature 98°, comfortable.

12th, 10 A. M. During the past two days the pulse has steadily increased to 130, temperature remains at 98°. The skin has been moist, urine abundant, and the patient has had but little pain. Bloody fluid has steadily passed through the drain tube. She is now restless, weary, and has a good deal of nausea; seems better when deprived of all fluids. She has had since the operation enough opium, either by the mouth or rectum, to control pain and permit sleep.

13th, 3 P. M. Has been troubled to-day with eructation of gas; has less nausea, however. Pulse 120, temperature 98°, skin hot and dry, head feels light and dizzy.

14th, 5 P. M. Dr. Jackson came and removed the sutures this morning. The wound was found entirely closed. There has been no distension of the bowels, and gas passes freely *per rectum*. Patient complains of weariness and numbness. Pulse varied during the day from 108 to 120; temperature 98°.

15th, 10 A. M. Pulse 128, temperature 97°. Face flushed, head dizzy, sweet taste in the mouth and sweetish odor of breath; sleep disturbed with unpleasant dreams, and mind dull and cloudy on waking. The drain tube not seeming to act well, I removed it and found the upper portion filled with bloody pus; no fluid followed its withdrawal.

16th. Pulse 128, temperature 96°. Dr. Jackson came to-day and found a hard mass occupying Douglas' space. He passed a curved trocar and cannula into it, and gave exit to one pint of dark bloody offensive fluid, subsequently washing out the part through the cannula with warm carbolized water. This procedure was followed by improvement, the patient becoming at once bright and cheerful. The temperature sank to 94°, and the patient began to perspire freely.

18th. The septicæmic symptoms and the pelvic hardness returning, Dr. Jackson was again sent for, and last night again drew off about a pint of the same offensive bloody fluid as before, and this time left the cannula *in situ*. The patient seemed greatly relieved; but this evening the colon is much distended with gas. Pulse 116, temperature 96°.

19th. Pulse 100, temperature 96°, skin moist, appetite good. Bloody fluid, with fibrinous flakes, pass through the cannula, and two or three times daily the pelvic and abdominal cavities are washed out through the tube. The tympanitic distension is relieved by the use of an enema.

25th. Progress has been steady during the past five days. The pulse has varied from 88 to 100, and the temperature has gradually risen from 96° to 98°. As the washings from the abdominal cavity have returned perfectly clear for two days past, I removed the cannula to-day. Patient calls my attention to a swelling of the left parotid gland.

31st. The glandular swelling has been extreme, but is now subsiding.

Jan. 3d. The glandular swelling has disappeared. Patient much better. She sat up in bed to-day, the first time since the operation, and sang.

8th. The abdominal wound has been inflamed and discharged pus for the past ten days, and to-day the pedicle ligature escaped from the sinus in its lower portion.

Feb. 11th. To-day the patient sat up in a chair. She seemed quite strong. Some pus still discharges through the opening in the vaginal wall left by the cannula.

27th. Is walking about her room, and seems quite convalescent.

March 3d. Another set-back. Since early this morning the left leg and foot have been rapidly swelling, and the pulse has risen from 100 to 128. The limb is not very painful; it pits on pressure, and is tender along the course of the femoral vein. The urine is turbid and scanty. She has, clearly, phlegmasia dolens.

20th. The swelling has subsided. Patient's appetite has returned, and the abdominal wound has entirely healed.

May 15th. She now does light work about the house, takes long drives into the country, and has gained fifteen pounds in weight.

Remarks.—There are several noteworthy features connected with this case. One is the occurrence of very decided symptoms of septic poisoning, and their prompt relief on the removal of the pelvic collection of decomposed bloody fluid; showing clearly the necessity, in all cases in which there is reason to apprehend any effusion of blood after ovariectomy, of providing at the time for efficient drainage; or, if this be not done, of promptly reaching the interior of the abdominal cavity either by vaginal puncture or reopening of the abdominal incision, for the double purpose of evacuating septic material and of subsequent intra-peritoneal washings. There can be no doubt but that this patient would have died had the accumulation of fluid in the pelvis been permitted to remain. The rubber tubing employed in this case, although it had a calibre of $\frac{1}{4}$ inch, and was pierced with numerous openings $\frac{1}{32}$ inch in diameter was quite inefficient for its intended purpose. Its fenestra soon became clogged, and the small amount of fluid which was transmitted by it gave an erroneous impression as to the actual condition of the parts within. Another objection to rubber in these cases is, that unless the tubing be of large size—necessitating the use of a correspondingly large trocar for its introduction—its walls are likely to be compressed at the point where it passes through the vagina. A glass or metal tube, properly curved, reaching from the middle of Douglas' space to half way through the vagina, would, I think, be found much more efficient and manageable. It could be prevented from passing into the abdominal cavity by a tightly-fitting collar of india rubber slipped upon it, and, if desirable, a piece of tubing could be attached to its distal extremity. The tube itself should not project beyond the vulva, because of its liability to be caught in the bedding, and thus, or in other manner, pulled from its place.

Again, the case is remarkable for the very unusual character of the complications attending convalescence. These were

a distinct attack of unilateral mumps, and a well developed phlegmasia dolens.

Finally, the temperature of the patient throughout was notably low. An hour after the operation it was 98° , and it remained without variation at this point during the first six days. It then fell to 94° , and, on the following day rose to 96° ; keeping thus for nine days. It rose on the sixteenth day to 98° , simultaneously with the attack of parotitis, but at no time did it rise above a normal point.

MECHANICS OF UTERINE DISPLACEMENTS.

By A. HOWARD SCOTT, M. D., MANSFIELD, ILL.

(Read before the Central Illinois Medical Society, May 2, 1876.)

I shall endeavor first to give the dynamics of uterine displacements, tracing out separately the mechanism of each, so that we may obtain clearer views of the indications to be met by mechanical means in our management of them.

There are three necessary conditions to constitute a healthy action of the uterus: 1st, A normal circulation and innervation; 2d, a normal structure; 3d, a normal position. These inseparable conditions constitute a tri-link chain, absolutely necessary for the existence of its healthy action.

All uterine pathological processes must take their origin in one or the other of the links of this physiological chain. If it start in the first link with disordered circulation and innervation, this may lead to abnormal structure (hyperplasia), and this abnormal structure may eventuate in abnormal position. If the morbid process start in the second link, with subinvolution following parturition, this may affect either the first or the third link, in the one case giving hyperplasia, in the other displacement. And finally, if the pathological process take its origin in the third link, with displacement resulting from any of the various forces usually producing it, this must of necessity soon affect the circulation and innervation, which later may eventuate in change of structure.

Before discussing the dynamics of displacements, we must briefly examine uterine statics, or the physiological forces in a state of equilibrium.

If we remember that the inherent weight of the uterus and superadded weight of abdominal viscera, constitute a force tending to carry the uterus lower in the pelvis, and that the vagina and the various ligamentous supports constitute opposing forces, and that when there is an equilibrium between these forces the uterus is in its normal position, we may express the statical condition by the following equation: Weight of uterus + weight abdominal viscera = resistance of vagina + resistance of ligaments. Now it is evident that any change of the one side of this equation, without a corresponding change of the other, must destroy its equality, giving as a result either an ascent or descent, or an anterior or posterior displacement of the uterus. Those proximate causes and favoring conditions usually enumerated by authors in their etiological classifications, we shall consider as so many physico-pathological forces, and arrange them thus:

Direct Forces.—Subinvolution, hyperplasia, uterine tumors, fluids contained in uterus, pregnancy, abdominal tumors, ascites, abscess, hæmatocele, distended bladder, distended rectum, tight lacing, heavy skirts, muscular efforts.

Indirect Forces or Diminished Resistance.—Ruptured perineum, weakened vaginal wall and sphincter, weakened uterine ligaments, weakened levator ani and perinei muscles, tissue change of cervix.

To properly correlate these various forces and to trace out their reciprocal actions and relations in the successive pathological and physical changes, constitutes one of the most complex problems in the science of etiology, we can best approximate the solution of this problem by studying in detail these various displacements. We shall therefore consider only the more important of them, in the following order: 1st, Prolapsus; 2d, Versions; 3d, Flexions.

Before proceeding further it becomes necessary at least to enumerate the various uterine supports, which we will divide

into two classes: 1st, Those connected with the cervix; 2d, Those connected with the body.

In the first class we enumerate the utero-sacral and the utero-vesical ligaments, together with the vagina, the most important and unyielding of all the supports, being so intimately connected by areolar tissue to the rectum and bladder as to involve these viscera in its descent. They act as guys to the cervix as well as support to the corpus. In the second class we enumerate the broad and the round ligaments, together with the bladder, as guys only to the body of the uterus, they offering no resistance to the descent of the uterus until *procedentia* is attained.

So delicately is the uterus poised in the pelvic cavity that each act of inspiration give a transitory physiological prolapsus. Need we then be surprised that a pathological prolapsus should be of such frequent occurrence? That physiological prolapsus peculiar to the first few months of utero-gestation, affords the best type by which to study the mechanism of the displacement. Here we have the increased weight of the uterus acting as a vertical force, together with the supports physiologically relaxed, combining to bring about the given result, prolapsus. This teaches that it requires little or no additional force to be added to the normal weight of the uterus and abdominal viscera to bring about prolapsus if the supports be enfeebled. Then it matters not what that super-added force may be, whether *fœtus*, tumor, hyperplasia, subinvolution, ascites, tight lacing or heavy skirts, the results will be the same if the supports be weakened; nay, prolapsus may occur in spite of the normal resistance of supports.

Then we may formulate the following as the mechanism of prolapsus: A force or combination of forces acting with or upon the uterus vertically, forcing it lower in the pelvis — this force or combination of forces being greater than the combined resistance of vagina, utero-sacral and the utero-vesical ligaments, together with the resistance of the round and broad ligaments when the descent amounts to *procedintia*. So that we have as a physico-pathological result increased length of all of the ligaments, the vagina being prolapsed or shortened.

We may express this displacement by the following formula, x denoting the super-added direct force, whatever it may be, thus: Weight uterus + weight abdominal viscera + x = resistance vagina + resistance of all the ligaments.

In retro-version the bladder and rectum play important parts. A distended rectum thrusts the cervix forward, putting the utero-sacral ligaments on the stretch, and if a replete bladder has already elongated the broad ligaments, we have a physical condition of the proper ligaments that will give a retroversion, if the same direct forces be in operation as in prolapsus. Then we formulate for retroversion the following: A combination of vertical force or forces with a horizontal force or forces, acting jointly with or upon the uterus, giving a resultant oblique force which carries the fundus backwards and downwards, dislocating cervix and top of vagina forward, this complex force or forces being greater than the resistance of round and utero-sacral ligaments, which we may likewise express by a formula, thus: Weight of uterus + weight of abdominal viscera + distended rectum + distended bladder + x = resistance of round ligaments + resistance of utero-sacral ligaments. Observing similar ætiological conditions, we may express the equation of *ante*-version thus: *Weight of uterus + weight viscera + x = resistance of utero-vesical ligaments.*

Flexions, as a rule, are the sequelæ of versions; this I have frequently seen demonstrated. The uterus in retroversion lies across the recto-vaginal septum, and in ante-version it lies across the vesico-vaginal septum. This change of position soon induces a change of circulation and innervation, which eventuates in tissue change of the organ, rendering it soft and spongy. The organ being in this condition it requires no effort of the imagination to see that if the same vertical forces be acting on the organ, they will still further depress the fundus and cervix, thus bending it across the septum, giving a retro-flexed or ante-flexed uterus, as the case may be. Authors usually claim cervical tissue change as the determining cause of flexions. The organ being soft and spongy from the nature of this change, the same forces that would tend to give a version, would give a flexion if the cervical support be firm.

Then for flexions we have the same formula as for versions, except that in flexions the resistance of the cervix is less than the resistance of the cervical ligaments. For retro-flexion we express it thus: Displacing force $>$ resistance of cervix + resistance of round ligaments. For ante-flexion: Displacing force $>$ resistance of cervix.

Then, to recapitulate, we will group together these formulas, in order to show at a glance the supports at fault in these respective displacements. For brevity we use the initials only of previous formulas:

Normal Uterus.—Wt. U. + Wt. A. V. = resistance vagina + resistance of all ligamentous supports. (x = cause.)

Prolapsus.—Wt. U. + Wt. A. V. + x $>$ resistance vagina + resistance of all ligaments.

Retroversion.—Wt. U. + Wt. A. V. + distended bladder + distended rectum + x $>$ resistance round ligaments + resistance utero-sacral ligaments.

Ante-version.—Wt. U. + Wt. A. V. + x $>$ resistance of utero-vesical ligaments.

Retro-flexion.—Wt. U. + Wt. A. V. + x $>$ resistance round ligaments + resistance of cervix.

Ante-flexion.—Wt. U. + Wt. A. V. — x $>$ resistance of cervix.

These formulæ give us clear views of the ligaments at fault, and thus point out the indications to be met in the employment of mechanical supports. Before considering these supports, I will make a few remarks on the general management of these cases. The first indication to be met, will be to remove those forces and determining causes that we have enumerated in our etiological classification. The second indication will be to restore the dislocated uterus to its normal position, and retain it there by appropriate mechanical contrivances until the uterine supports regain their normal length and tone. These second indication we shall only consider in this article. The means of reducing a displaced uterus are so well understood that I shall not consider them, but at once proceed to a consideration of mechanical supports.

Pessaries have been used from time immemorial. Their almost innumerable varieties teach plainly the unsatisfactory

nature of all such supports as have hitherto been devised. Though this is in a great measure owing to the employment of pessaries before the pathological conditions associated with the displacement have been removed by appropriate means, yet much of the difficulty has been, I apprehend, in not having properly constructed instruments—instruments having an eye to the supports at fault and to an objective cure. The “coming pessary” must have a regard for these things—one that will not distend the vagina nor chafe, and will at the same time retain the uterus in its normal position.

The most philosophical instrument yet devised for prolapsus uteri is, undoubtedly, the stem surmounted with a cup to receive the cervix. It fills the indications with the least distension of vagina; but it is objectionable, practically, because the patient is liable to place the cup in the anterior or posterior cul-de-sac, as over the cervix, and may thus do themselves incalculable injury and unjustly blame the instrument for it. On this account a stem surmounted by a globe or pear shaped body would be safer in the hands of the majority of women, and generally give good results. All stem pessaries, however, are liable to chafe the posterior fourchette and the labia majora; yet by giving a proper curve to the stem, and a little patience on the part of wearer, this objection may in time be overcome. But if a stem instrument cannot be tolerated, then employ Hodge’s closed lever, the elastic ring or hard rubber disk-pessary. The latter is an instrument generally tolerated well by the vagina, and usually gives good results in this displacement, yet it is objectionable in distending the vagina too much. We should have an eye to the vagina regaining its normal calibre, as well as the ligaments regaining their normal length, in our treatment of all displacements, but of this one especially.

In retroversion the round and utero-sacral ligaments are chiefly at fault, both being elongated. The indications here are to carry the cervix upwards and backwards, throwing the fundus forward, and to keep them thus until the utero-sacral and the round ligaments regain their normal tone and length. The most philosophical instrument for this purpose, that I

have yet seen, is the pessary of Schultze, that I found described by Schroeder in his treatise on diseases of the female sexual organs. The short curve of this instrument presses against the anterior face of the cervix and keeps it well back, without putting the utero-sacral ligaments to further stretching, a thing we should avoid. This instrument, modified by a sub-pubic curve, is much improved. Should this instrument not be tolerated, I should then employ a stem surmounted by a globe or pear shaped body, adjusted in front of cervix (not the corpus). Those so-called retroversion pessaries, that carry the cervix backward by stretching the posterior vaginal wall, and exert a leverage action through the fornix vagina, I consider unphilosophical, if not injurious. The facts in this displacement are, that the posterior vaginal wall and utero-sacral ligaments have already been stretched to their utmost in the forward movement of the cervix. The surgeon, in his efforts to radically cure this displacement, shortens the posterior vaginal wall, the very opposite effect to that accomplished by one of the so-called retroversion pessaries.

In ante-version the utero-sacral and round ligaments both become shortened as a result of this displacement. The indication then is to lengthen them both by carrying the cervix forwards and the fundus upwards and backwards. There is no means yet devised to meet the indications philosophically, without putting the already elongated utero-vesical ligaments to a further stretching, yet we are justified in doing so in order to effect an elongation of the round ligaments. Then the most appropriate instrument to effect this, I think, is Thomas' modification of the Cutter pessary. It has this advantage over Thomas' ante-version pessary, the patient can adjust and remove it herself. After having worn it sufficiently long to effect an elongation of the round ligament, then use the stem and ball pessary, adjusted behind the cervix, so as to throw it forward and give the utero-vesical ligaments opportunity to contract, at the same time employing a truss-like pad, pressing the hypogastrium just above the symphysis pubis, to prevent any forward inclination of the uterus. This procedure usually gives gratifying results.

In flexions the round ligaments are chiefly at fault (all the other ligaments being normal, or nearly so), they being elongated in retro-flexion and shortened in ante-flexion. The indications in the one case being to carry the fundus upwards and forwards, in the other to carry it upwards and backwards, and so retain it, if we can, until the round ligaments regain their natural length and tone. In flexions the so-called retro-version and ante-version pessaries are more appropriate and philosophical than they are in those displacements that their respective names indicate; but they all are palliative, not curative. We must first try to effect a straightening of the flexion; this we can often accomplish by a judicious employment of the sponge tent, after the plan so well described in the January number of the *American Journal of Medical Science*, by Dr. Ellerslie Wallace. I employed the sponge tent for this purpose ten years ago, and succeeded in relieving permanently one of the worst cases of retro-flexion I ever saw, accompanied with the most agonizing obstructive dysmenorrhœa. After having straightened the flexion, whilst the cervix is yet soft and spongy, employ any of the various ante-version and retro-version pessaries usually employed to elevate the fundus, until the round ligaments regain their lost tone and length. I have had no experience with the intra-uterine stem pessary for straightening flexions, as described and advocated by Schroeder, in his treatise on female sexual organs; yet I believe it to be one of the very best of instruments for a limited class of cases, those having no inflammatory complications.

For those cases of flexion with a long cylindrical cervix, the pessary invented by Dr. Hurd, of Alabama, is highly commended by gynarcologists as giving good results. I have never as yet employed it. I regret that time will not allow me to discuss further these flexions: to do them justice a separate monograph should be written.

No matter what instruments we may employ in these various displacements, we should keep a close supervision over them, lest by pressure or chafing they do serious mischief. The cold vaginal douche should be employed freely morning and evening so long as the instrument is worn. Should at

any time the uterus or vagina become intolerant of the instrument, remove it and employ tampons medicated with carbolic acid and glycerine, after the plan of Dr. T. G. Thomas, N. Y., when, after a few days, the instrument may again be resumed.

IMPRESSION PRODUCED ON THE SKIN BY DIFFERENT HEATED LIQUIDS.—(Bloch. *Révue Medico-Photographique. Times and Gaz.*, 1876.) M. Bloch has communicated to the Société de Biologie the results of his experiments, which show that liquids become burning at very different temperatures. He takes as a term of comparison the thermometrical degree which allows of the immersion of the hand during two minutes without producing great pain. He finds that this is 48° C. for mercury, 49° for water and for solution of tannin, 51° for solution of carbonate of soda, 52° for alcohol and for milk, 55° for essence of turpentine and starch-paste, 57° for glycerine, 60° for oil, and 65° for beef-fat. He explains most of the differences by the greater or less facility with which imbibition by the epidermis takes place, and especially those observed in aqueous solutions and fatty bodies. This hypothesis cannot apply to mercury, and its action is probably explained either by its great conductivity, or by the pressure in virtue of its density which it exerts on the immersed part—a pressure which renders the contact closer and the propagation of caloric easier.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES, COMPARED WITH THAT OF OTHER REGIONS.

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(Continued.)

AMPUTATION OF THE THIGH.

This important operation furnishes us the following list of cases in the Lake States:

TABLE VIII.

AMPUTATION OF THE THIGH.

No. An- drew's Sur. Rec	OPERATOR.	REASON FOR OPERATION.	COMPLICATIONS.	Operati'n	Cond. at opr.	Time to operation.	Result.	Time to death or recovery.	Practice.
5471	Dr. E. Andrews	16 Protrusion of bone after prev. amput		Re-a. m. 3	Good	Secondary	Recover'd		Hospital.
	" E. W. Lee	22 Comp. fract. of leg.		Flap low 3	Med.	"	Died	9 days	Private
8880	" " "	10 " "	Great shock	Good	Good	Primary	Recover'd	3 weeks	"
7726	" E. Andrews	9 Leg crushed by cars.		Lower 3d	Bad.	"	Died		Hospital.
7727	" " "	50 Carious knee.	Much exhausted.	Flap. m. 3	Good	2½ years		6 days	Private
7752	" " "	30 " "	None	Lower 3d	Med.	8 "	Recover'd		"
	" S. S. Bedal	64 Comp. fract. thigh	Suspected phthisis.	Mid. 3 cfr.	Good	10 days	"		"
	" Thos. Lacy	17 Disease of knee.	Gangrene.	"	"	13 years	"		"
775	" E. Andrews	17 Gangrene from injury.	None	Flap. low 3	Good	6 days	"		Private
1612	" " "	40 Comp. fract. of knee.	Intemperate.	"	"	Primary	"		"
1653	" " "	25 Knee crushed by timber.	None	"	"	"	"		"
5488	" " "	25 Caries of knee.	Had been previous exsec.	"	"	"	"		"
	" J. S. Sherman	36 R. R. accident, drunk	Crushed thigh and op. leg	Am.	Bad.	Primary	Died	6 mos.	Hospital.
1369	" E. Andrews	5 Comp. fract. leg	Opposite knee bruised	Flap. low 3	Med.	Secondary	Recover'd	1 hour	Private
6397	" M. Gunn	50 Sanile gangrene.	Intemperate.	"	"	6 days	"	10 weeks	Hospital.
	" R. Isham	30 Comp. fract. of femur.	None	"	"	Primary	"		Private
	" La Count	40 Chronic inflam. of knee	None	"	"	36 hours	Died	7 weeks	Hospital.
	" H. A. Johnson	30 Crushed knee and hemorrhage	Great shock	"	Good	Some mos.	Recover'd	48 hours	Private
	" E. Andrews	33 Cancer of knee		"	Bad.	Primary	Died	1 hour	"
	" J. W. Freer	25 Comp. and commin. fract. of leg.		Lower 3d	"	"	Recover'd		Hospital.
	" G. Ammerman	7 " "	Wounds op. limb, g. shock	"	Bad.	Primary	Died	10 weeks	"
	" A. Fisher	19 Cancer of tibia.		"	"	1 year	Recover'd		Private
	" " "	19 Caries of knee and mort. of leg		"	"	9 months	"	7 weeks	"
	" " "	25 " "		"	"	2 years	"	6 "	"
	" " "	8 Freezing of leg		"	Med.	6 months	"	5 "	"
	" " "	39 Chronic inflam. of knee with caries		"	"	2½ years	"	7 "	"
	" " "	30 " "		"	Bad.	3 "	"	10 "	"
	" " "	20 Knee joint nearly severed with ax.	Inflamed—suppurating.	"	"	6 hours	"	6 "	"
	" " "	40 Gun-shot wound of knee joint.	None	"	Good	3 weeks	"	8 "	"
	" Hyde	41 Comp. and commin. fract. leg	"	"	"	Primary	"	2 mos.	"
	" J. H. Hollister	7 Knee crushed by car wheel		"	"	"	"		Hospital.
	" E. Owens			"	"	"	"		"

RECAPITULATION.

	CASES.	DIED.	PER CENT. MORTALITY.
Total of all kinds	76	18	24
Traumatic, primary, upper 3d	5	2	40
“ intermediary or secondary upper 3d	1	1	
Pathological, upper 3d	2	0	
Traumatic, primary, middle 3d	4	3	
“ intermediary and secondary combined, middle 3d	5	1	
Pathological, middle 3d	7	2	
Traumatic, primary, lower 3d	18	5	28
“ intermediary and secondary combined, lower 3d	9	3	33
Pathological, lower 3d	22	0	0
Hospital cases	20	6	30
Private practice	54	11	20

There is on record in the literature of surgery a prodigious mass of cases of amputation of the thigh, but, unfortunately, most of them are so destitute of details that they cannot be properly classified. Generally there is no statement in what portion of the thigh the operation took place, and often the essential distinction into primary, secondary and pathological cases is ignored. The statistics of the upper two-thirds are especially meagre.

AMPUTATION UPPER 3D OF THIGH ABROAD, TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	11	11
Mass. Gen. Hosp. Rept., 1871	13	7
Dr. Herrgolt, Siege of Strassburg, 1870-71	2	1
Dr. Nunneley, Leeds Gen. Infirmary	9	2
Dr. E. Warren's Surg., p. 395, Confed. Army	5	3
Totals	40	24

Mortality abroad, 60 per cent.

AMPUTATION UPPER 3D OF THIGH ABROAD, INTERMEDIARY AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	7	2
Dr. Herrgolt, Siege of Strassburg, 1870-71	6	5
Dr. E. Warren's Surg., p. 395, Confederate Army	5	1
Totals	18	8

Mortality abroad, 44 per cent.

AMPUTATION UPPER 3D OF THIGH ABROAD, PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	3	1
Rept. Bost. City Hosp., Dr. Cheever	2	1
“ Mass. Gen. Hosp., 1871	15	4
“ U. S. Marine Hosps., Dr. Woodworth	1	0
Leeds Gen. Infirmary, Mr. Nunneley	9	2
Totals	30	8

Mortality abroad, 27 per cent.

AMPUTATION MIDDLE 3D OF THIGH ABROAD, TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	2	1
Rept. Boston City Hosp., Dr. Cheever	4	4
“ Mass. Gen. Hosp., 1871	13	6
Dr. Herrgolt, Siege of Strassburg, 1870-71	1	1
Dr. E. Warren's Surg., p. 395, Confederate Army U. S.	13	4
Totals	33	16

Mortality abroad, 48 per cent.

AMPUTATION MIDDLE 3D OF THIGH ABROAD, TRAUMATIC, INTERMEDIARY AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	4	1
Rept. Boston City Hosp., Dr. Cheever	4	1
“ Mass. Gen. Hosp., 1871	7	3
Dr. Herrgolt, Siege of Strassburg, 1870-71	9	8
Dr. E. Warren's Surg., p. 395, Confederate Army U. S.	15	10
Totals	39	23

Mortality abroad, 59 per cent.

AMPUTATION MIDDLE 3D OF THIGH ABROAD, PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	4	1
Rept. Boston City Hosp., Dr. Cheever	4	1
" Mass. Gen. " 1871	47	10
" Rostoch "	1	0
Totals	56	12

Mortality abroad, 22 per cent.

AMPUTATION LOWER 3D OF THIGH ABROAD, TRAUMATIC, PRIMARY.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	6	3
Rept. Boston City Hosp., Dr. Cheever	13	10
" Mass. Gen. Hosp., 1871	35	12
Dr. Herrgolt, Siege of Strassburg, 1870-71	2	2
Dr. E. Warren's Surg. Confederate Army	27	10
Totals	83	37

Mortality abroad, 45 per cent.

AMPUTATION LOWER 3D OF THIGH ABROAD, INTERMEDIARY AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	3	0
Rept. Boston City Hosp., Dr. Cheever	4	1
" Mass. Gen. Hosp., 1871	8	6
" U. S. Marine Hosp.	1	0
Dr. Herrgolt, Siege of Strassburg, 1870-71	1	1
	43	28
Totals	60	36

Mortality abroad, 60 per cent.

AMPUTATION LOWER 3D OF THIGH ABROAD, PATHGLOGICAL.

AUTHORITIES.	CASES.	DIED.
Circular No. 3, Surg. Gen. U. S. A.	2	0
Rept. Boston City Hosp., Dr. Cheever	7	2
“ Mass. Gen. “ 1871	101	19
“ Rostoch “	3	0
“ British Army	2	1
* Glasgow Infirmary	92	19
* St. Thomas Hosp., 1835-40	13	4
* Univ. College Hosp., 1843	54	10
* Hussey	55	10
* James at Exeter	119	10
* Cases in Med. Times and Gazette, 1851-57	54	9
* Addenbrooke's Hosp., Cambridge	92	17
* St. George's Hosp., 1866	12	6
* London Hosp., 1854-57	169	38
* Provincial Hosps.	134	33
Totals	909	178

Mortality Abroad, 20 per cent.

AMPUTATION THIGH ABROAD, TRAUMATIC, PRIMARY, PLACE NOT STATED. .

AUTHORITIES.	CASES.	DIED.
Dr. E. Warren's surg., p. 395, Confederate Army	25	9
Guy's Hosp. Repts.	12	5
St. Thomas' Hosp.	5	2
St. Bartholomew's Hosp., 1853-71	26	9
Penn. Hosp.	24	10
Mass. Gen. Hosp.	60	25
Malgaigne, quoted in Gant's Surg., p. 689	46	34
Other cases “ “ “ “	24	24
Birmingham Gen. Hosp., 1853-64	19	13
Deutsches Zeitschrift f. Chir. B. 1, S. 187, }	23	15
German-French War, }		
Same work, B. V., S. 26	5	4
Bech's Kriegschir	10	4
Circular No. 6, Surg. Gen. U. S. A.	423	229
New York Hosp.	16	12
Boston City Hosp.	21	15
Siege of Antwerp, Schmidt's Jahrbücher, B. 156	12	2
“ “ Paris, 1830-32 “ “ “ “	3	0
German-French War “ “ “ “	27	17
Crimean War “ “ “ “	1589	1424
Italian “ “ “ “	109	85
German “ 1866 “ “ “ “	11	5
Totals	2490	1943

Mortality, 78 per cent.

* Archiv. Klin. Chir. B. VIII. S. 910. These are all amputations for disease of the knee; they must therefore have been, with few exceptions, in the lower 3d, and are consequently classed as such.

AMPUTATION OF THIGH ABROAD, INTERMEDIARY AND SECONDARY
COMBINED, TIME NOT STATED.

AUTHORITIES.	CASES.	DIED.
Guy's Hosp. Repts.	11	9
St. Thomas' Hosp. Repts.	2	1
St. Bartholomew's Hosp., 1853-71	53	29
Birmingham Gen. Hosp., 1853-64	67	15
Gant's Surg., p. 689, Military cases	300	270
Billroth and others, in German-French War	34	22
Bech's Kriegschirurgie	41	22
Circular No. 6, Surg. Gen. U. S. A.	638	477
Mass. Gen. Hosp.	15	9
New York "	14	6
Boston City "	4	3
Pennsylvania "	15	6
Siege of Antwerp, Schmidt's Jahrbücher, B. 156	3	1
Paris, 1830-32 " " "	6	4
German-French War " " "	52	39
Crimean " " "	221	197
Italian " " "	128	107
German War, 1866 " " "	47	28
Dr. E. Warren's Surg., Confederate Army	39	34
Totals	1690	1279

Mortality abroad, 76 per cent.

AMPUTATION OF THIGH ABROAD, PATHOLOGICAL, PLACE NOT STATED.

AUTHORITIES.	CASES.	DIED.
Guy's Hosp. Repts., 1861-68	83	27
St. Thomas Hosp. Repts.	9	1
St. Bartholomew's Hosp. Repts., 1853-71	278	89
St. George Hosp., 1864-68	54	25
London Hosp., 1862-68	68	23
King's College Hosp., 1863-68	14	5
Royal Free " 1862-68	6	1
Westminster " 1861-67	5	4
St. Mary's "	6	1
Brit. Army Med. Rep.	3	0
Mr. H. D. Cardin, of Worcester	6	0
New York Hosp.	21	6
Pennsylv. "	37	9
Boston City "	16	4
Mass. Gen. "	162	34
Totals	768	229

Mortality abroad, 30 per cent.

The following are figures from various authorities, in which the particulars of time, place, etc., are more imperfectly given than the above:

AMPUTATION OF THIGH, DETAILS, TIME, PLACE AND CAUSE IMPERFECTLY STATED.

AUTHORITIES.	CASES.	DIED.	PER CENT. MORTALITY.
Military cases from American and various European Wars, after deducting figures previously quoted.....	2156	1444	67
Civil Cases from various Sources.....	1243	713	57
Totals.....	3399	2157	63

GENERAL SUMMARY OF AMPUTATIONS OF THE THIGH.

TOTALS.	LAKE STATES.			ABROAD.		
	CASE	DIED	PER CT. MORT	CASE	DIED	PER CT. MORT
Upper 3d, primary.....	5	2		40	24	60
" intermediary and secondary.....	1	1		18	8	44
" pathological.....	2	0		30	8	27
Middle 3d, primary.....	4	3		33	16	50
" intermediary and secondary.....	5	1		39	23	59
" pathological.....	7	2		56	12	22
Lower 3d, primary.....	18	5	28	83	37	45
" intermediary and secondary.....	9	3	33	60	36	60
" pathological.....	22	0	00	909	178	20
Place not stated, primary.....				2490	1943	78
" " " intermediary and secondary.....				1690	1279	76
" " " pathological.....				768	229	30
Conditions not stated at all.....	3	1		3399	2157	63
Totals.....	76	18	24	9615	5950	62

It appears, therefore, that the average mortality of amputation of the thigh, in the Lake States, is considerably less than half that given in the published statistics elsewhere.

OPINIONS OF AUTHORS.

Authors contradict each other somewhat as to the conditions requiring amputation of the thigh.

Erichsen, vol. II., pp. 200 and 237, advises immediate

amputation of all compound gun shot fractures of the femur, except in the upper third.

On the other hand the *Archives Générales de Médecine* (tome xiii., serie 5e.) says that in the Crimean War conservative treatment of gun shot fractures of the femur, or of any other part of the inferior member, was five times more successful than amputation. Yet Macleod, discussing the same war, says, we ought to use conservative treatment in the upper third, and amputation in the middle and lower thirds.

Hamilton says, in gun shot fractures of the middle third conservative treatment and amputation have equal success, while conservative treatment is the most fatal in the lower third. This is doubtless because gun shot fractures in the lower third are apt to split into the knee joint, thus opposing a very dangerous complication to conservative success.

In contradiction to this difference of the upper and lower thirds, Max Schmidt (*Schmidt's Jahrbücher*, 1872) says all the war statistics of 1830 show that conservative treatment of gun shot fractures of the thigh is more successful than amputation, *in every portion* of the member.

Demme and Legouest give statistics to the same end (see same article), showing that in all parts of the thigh, treated for gun shot fractures, the mortality of amputation exceeded that of conservative treatment by the following amounts:

					DEMME.	LEGUEST.
Mort. of amp. in upper 3d	exceeds conser. treat. by				29 pr. ct.	27 pr. ct.
" " middle 3d	" "	" "			11 "	26 "
" " lower 3d	" "	" "			18 "	32 "

Legouest elsewhere states (*Chirurgie d'Armée*, p. 537), that in the battle of Langensalza, 1866, and in the French army in the Crimea, and in Italy, conservative treatment of the thigh was most successful by about nineteen per cent.; while in the English army in the Crimea, in the American war of secession, in the Schleswig-Holstein war and in Stromeyer's figures from the battle of Langensalza, amputations of the thigh were more successful than conservative treatment by about fourteen per cent.

Dr. Albert Malinas (Conservation, Paris, 1872, p. 51) gives

a table showing that gun shot fractures in the thigh, in the Crimea and in the Italian war, according to the experience of the French army, were better treated conservatively than by amputation. He says the results were these:

	MORTALITY OF CONSERVATIVE TREATMENT OF THIGH.	MORTALITY OF AMPUTATION OF THIGH.
Crimean War.....	35 per cent.	{ Upper 3d. 94 per cent. Middle 3d. 94 per cent. Lower 3d. 90 per cent.
Italian War	58 per cent.	64 per cent.

Dr. S. W. Gross, in the October number of the *Am. Jour. Med. Sci.*, 1867, carefully collated the statistics on this subject, from which essay I condense the following points respecting gun shot fractures of the thigh, treated some by amputation and some by conservative treatment:

TREATMENT OF GUN SHOT FRACTURES OF THE THIGH.

AMPUTATIONS.

	CASES.	DIED.	PER CENT. MORTALITY.
All kinds Combined.....	4123	3146	76
Primary.....	695	381	55
Secondary (and Intermediary).....	753	572	76
Franco-Sardinian Army in Italy, and { Upper 3d..	225	177	79
British Army in Crimea. { Middle 3d..	268	175	65
	236	130	55

CONSERVATIVE TREATMENT.

	CASES.	DIED.	PER CENT. MORTALITY.
Franco-Sardinian Army in { All kinds combined	1450	923	64
Italy, in 1859, French { Upper 3d.....	445	306	69
Army in Crimea and Am. { Middle 3d.....	327	181	55
War of Secession. { Lower 3d.....	295	150	51

He concludes that in gun shot fractures of the thigh, conservative treatment is better than amputation by twelve per cent., the lower third being no exception, and better than exsection of the femur by twenty-four per cent.

Billroth, of Vienna, in his letters from the late German-French war, collates figures from various wars, which foot up as follows:

CONSERVATIVE TREATMENT OF GUN SHOT FRACTURE OF THIGH.		MILITARY AMPUTATION OF THIGH.	
Cases.....	1339	Cases.....	3721
Died.....	949	Died.....	2826
71 per cent. mortality.		76 per cent. mortality.	

As already stated, the *Archives Générales de Méd.*, 1859, has an article claiming that, in the Crimean war, conservative treatment for gun shot fracture of the leg and thigh was five times more successful than amputation. It is evident that the opinions of the most eminent men are in utter contradiction on this subject; and by some inexcusable blundering the figures are in the same situation. The truth is that military statistics are often extremely delusive, in consequence of the improper manner in which they are collected. We will discuss this matter further under the head of "Conclusions."

Formerly all gun shot fractures of the femur were supposed to demand amputation, but Malgaigne defended, before the French Academy, the opinion that conservative treatment should be tried wherever the circumstances did not compel amputation. Velpeau and Jobert (de Lamballe) sustained him.

Hamilton (*Military Surgery*, p. 399) advises to amputate the thigh for gun shot fracture: 1. When the patient must be carried far, over rough roads without adequate support to limb. 2. When the bones are greatly comminuted. 3. When there are uncontrollable pains and spasms. 4. When there is great contusion or laceration of soft parts. 5. When the principal arteries or nerves are destroyed. 6. When the fracture is at or near the knee.

He advises not to amputate: 1. When the bullet fractures the head, neck—trochanter—or shaft just below the trochanter. 2. When the wound is from a pistol, a spent ball, or any projectile which makes but little comminution.

Longmore, in his article in *Holmes' System of Surgery*, vol. ii, p. 227, quotes the statistics of the American war as showing that conservative treatment of gun shot fractures of the upper third of the thigh was three per cent. more successful than amputation, and hence recommends conservatism in uncomplicated cases. In the middle and lower thirds he recommends amputation, as shown by statistics to be slightly safer in the middle, and decidedly safer in the lower third than conservative treatment. His figures from Circular No. 6, S. G. O., are so erroneously quoted that I am obliged to correct them from the original document:

	CONSERV. TREAT.			AMPUTATIONS.		
	CASE	DIED	PER CT. MORT	CASE	DIED	PER CT. MORT
Upper third.....	330	237	72	32	24	75
Middle third.....	238	132	55	93	51	55
Lower third.....	173	101	58	243	112	46

Circular No. 6, of the U. S. Surg. Gen., compares conservative treatment of gun shot fractures of the knee, with treatment by amputation just above, with the following results:

	CASES.	DIED.	PER CENT. MORTALITY.
Gun Shot Fracture of Knee, treated by Amp.			
Lower Third of Thigh.....	452	331	73
Same Injury Conservatively Treated.....	308	258	84

Dr. E. Warren, of the Confederate army, and Surg. Gen. of North Carolina, gives, in his "Surgery of the Field and Hospital," two hundred and one cases of fractured knee joint from the Richmond hospitals, with one hundred and twenty-one deaths, a mortality of sixty per cent. He remarks judiciously that these figures do not represent the whole truth, as many bad cases died before reaching the hospitals. Were these added the mortality would doubtless be greater.

The *Deutsch Zeitschrift für Chir.*, Bd. 2, S. 106, gives,

from the German-French war, thirty-four cases of penetrating gunshot wounds of the knee joint, with twenty-four deaths; a mortality of seventy per cent.

Max Schmidt (*Jahrbücher*, 1872) advocates conservative treatment—not only in wounds about the knee, not penetrating the capsule, but also in the simpler intracapsular wounds.

Surgeon J. M. Woodworth, formerly Med. Director of the Army of the Tennessee, and now Supervising Surgeon of Marine Hosps., claims, on the contrary, that almost all gun shot openings of the knee joint, even if the bones are not fractured, should, in military practice, be amputated.

Guthrie (*Commentaries on the Crim. War*) says gun shot fractures of the knee joint imperatively require primary amputation; but that if the patella alone be broken, and that only moderately, delay may be allowed. At page 151 he maintains that when gun shot fractures of the lower half of the femur do not communicate with the knee joint, conservative treatment should always be preferred.

CONCLUSIONS.

From this somewhat contradictory mass of opinions on one of the plainest operations in surgery we see how far from being settled many precepts of our art still are. We will try to evolve partial order out of the chaos, and where this is impossible we will at least ascertain what points are still unknown, and must wait the further growth of science for light upon them.

1. It is settled forever, as every one knows, that the nearer the operation comes to the body the greater the risk, other things being equal. There is an apparent exception in the traumatic secondary cases, for in these the mortality of secondary cases increases as we approach the knee. This is probably due to the inclusion of many cases in which compound fractures opened that joint, producing suppuration, etc., in which accident the earlier secondary amputations are excessively fatal. Amputations in the height of an active suppurating inflammation of the knee are considered almost necessarily fatal. Did the published records admit of our sifting out

these knee cases, we should probably find that the remaining secondary cases followed the usual rule of increasing danger as we approach the body.

Our average Lake State mortality for all amputations of the thigh is only 24 per cent. against 62 per cent. elsewhere. Our number in the upper two-thirds are too small to establish reliable averages, but if we distribute the 24 per cent. risk according to the experiences elsewhere, we shall have the following as our probable rates:

PROBABLE RISK OF AMPUTATIONS OF THIGH IN THE LAKE STATES.

Upper	3d Primary	about 30 per cent.
"	3d Intermediary.....	" 45 " "
"	3d Purely secondary.....	" 20 " "
"	3d Pathological	" 18 " "
Middle	3d Primary.....	" 24 " "
"	3d Intermediary	" 36 " "
"	3d Purely secondary.....	" 25 " "
"	3d Pathological	" 15 " "
Lower	3d Primary.....	" 22 " "
"	3d Intermediary	" 45 " "
"	3d Purely secondary.....	" 25 " "
"	3d Pathological	" 10 " "

These figures can only be approximate, of course. Massive as are the published statistics of amputations of the thigh abroad, most of them are in such a wretchedly crude and even contradictory condition, that their usefulness is in a great measure lost, and proportions taken from them and applied to our cases must be received with many allowances.

I ought to say here that in the division into traumatic and pathological, experience shows that amputations of "expediency," or "complaisance," that is, amputations performed to remove deformities, on limbs otherwise healthy, have a mortality much greater than other pathological cases, and rank nearly the same as traumatic primary operations.

The above averages will do as a starting point, but in each case we must consider the individual modifying circumstan-

ces. If the patient's condition and surroundings are better than usual, his risk will be much less; and if the reverse, it will, of course, be greater than the above average.

Injuries which, like bullet wounds, comminute the bones in the interior of the knee, require primary amputation, but if the period for this has already passed, the patient is in a very dangerous situation, as amputations of these cases are desperately perilous during the acute portion of the suppurative stage, and excisions are the same, while delay is not much better. Perhaps the best way would be to open the joint, pick out the fragments, apply Lister's carbolic acid treatment thoroughly every day, and keep up extension of the leg by adhesive plasters, weight and pulley, and thus carry the case over the period of acute activity, when the risk of an amputation will be greatly diminished.

This is only a suggestion, for which there is no accumulation of experimental proof as yet adduced.

Ordinary compound fractures, not comminuted, but yet extending into the knee joint, were often best treated in former times by a primary amputation; but at present, he that is master of the antiseptic methods, and bold enough to apply them thoroughly, will find them more useful than amputation for such cases, if seen immediately.

Military fractures of the thigh, not implicating the knee joint, and not accompanied with such injuries to vessels or other parts as will produce mortification of the member, are best treated conservatively, and especially so in the upper half of the thigh.

(To be Continued.)

THE following resolutions were passed at the Annual Meeting, April 11, 1876, of the Michigan State Board of Health. THE JOURNAL AND EXAMINER endorses them with the most hearty approval:

WHEREAS, The Signal Service Bureau of the United States has demonstrated its great usefulness in securing benefits to

public safety of life in this State, particularly to the large number of persons employed upon or journeying over the great lakes, and in promoting health through better protection of cereal and other food crops because of its warnings, and also through the valuable data for the study of the relations of health and of diseases to the climatic conditions, knowledge of which is essential to an avoidance of causes now statistically shown to be of great influence on the death rate; therefore,

Resolved, That the hope be expressed by this Board that the means of the usefulness of U. S. Signal Service Bureau be in no way abridged, but rather increased; that it be permanently organized, and that its sphere of labor be enlarged, especially in the direction of obtaining and recording meteorological data bearing still more closely upon important questions relating to the public health.

Resolved, That, although not essential in connection with its work for the prediction of storms, it is desirable for purposes of progress in public health that we have at least monthly statements of the absolute humidity of the atmosphere, and of the exact atmospheric pressure at different stations (not calculated to sea level as required for other purposes) and that it is also desirable that observations on Ozone be recorded.

Resolved, That in the opinion of this Board, such an enlargement of the means and labor of the Signal Service as is contemplated in the foregoing, will add to its present acknowledged usefulness, and is desirable in the interests of public health in this State.

Resolved, That the Secretary of this Board be directed to forward a copy of the foregoing preamble and resolutions to the Chief Signal Service Officer of the United States, and to each of the members of Congress from this State.

DIAGNOSTIC SYLLABUS OF THE INFLAMMATION COMMONLY MET WITH IN THE UTERUS AND VAGINA.

PREPARED BY J. H. ETHERIDGE, M. D.,

PROF. OF THERAPEUTICS IN RUSH MEDICAL COLLEGE, ONE OF THE ATTENDING
GYNECOLOGISTS AT CENTRAL FREE DISPENSARY.

The greatest difficulty a young gynecologist has to encounter is correct diagnosis. Writers are justified in publishing

anything that will give him assistance in determining what ails his patient. The following syllabus, prepared by the writer several years ago for individual use, is published in the hope that others may be benefited. Familiarity with anatomy and pathology is absolutely indispensable to profiting by this tabulation. Mastering them thoroughly often enables the gynæcologist to know almost certainly what to expect from the general symptoms, and using the means of diagnosis is only confirmatory of his diagnostic suspicions. The usual means of diagnosis may be thus arranged to show at a glance what they reveal:

MEANS OF DIAGNOSIS.

GEN'L SYMPTOMS.	TOUCH.	SPECULUM.	PROBE.
1. Pain: Locality and character. Amount.	Reveals: 1. Perviousness of vag. canal 2. Location, size, density and tenderness of cervix. 3. Os open or v. v., soft or v. v., smooth or rough, moist or dry, enlarged or elongated or atrophied. 4. Presence or absence of hardness or tumefaction of recto-vaginal or cysto-vaginal spaces; also nature of the same. 5. State of ovaries and pelvic areolar tissue determined by lateral and upward pressure. By Conjoined Manipulation: 6. Volume, shape, sensitiveness of uterus, ovaries, broad ligaments and bladder. By Rectal Touch, double and single: 7. Condition of post wall of uterus.	1. Reveals color of m. m. of vaginal tract and cervix, and condition of os. 2. Nature of leucorrhœa. 3. Declares atrophy or hypertrophy of cervix. 4. Reveals nature of mucus abrasions and "ulcerations."	1. Reveals capacity of uterus. 2. Existence of foreign growths. 3. Shows deviations of course of canal, and differentiates them from tumors. 4. Indicates Endometritis.

A glance at the syllabus will serve to show its design. In such a condensed arrangement of symptoms, extreme accuracy and exhaustiveness are impossible. One or all four of these generally recognized uterine inflammations may be present, at one and the same time, in the same patient. Novices are advised to systemetically use the indicated "means of diagnosis," and habits of accurately observing will soon be engendered.

FOUR VARIETIES OF UTERINE

MEANS OF DIAGNOSIS.	1. METRITIS.		2. CERVICITIS.	
	Acute. <i>Very rare.</i>	Chronic.	Acute.	Chronic.
1. Gen. sym	<i>Gen'l Symptoms:</i> <i>a.</i> Violent pelvic pain, accompanied with rectal, vesical and uterine tenesmus, and sometimes with nausea and vomiting. <i>b.</i> Pressure over abdomen reveals great sensitiveness.	<i>Gen'l Symptoms:</i> <i>a.</i> Dull, heavy, dragging pain in pelvis, increased by locomotion. <i>b.</i> Defecation and coition painful. <i>c.</i> Menses accompanied with pain, which begins several days previous. <i>d.</i> Pain in mammae during and before menstruation. <i>e.</i> Darkening of areolæ of the breast <i>f.</i> Nausea and vomiting. <i>g.</i> Great nervous disturbance. <i>h.</i> Pressure on rectum with hæmorrhoids and tenesmus. <i>i.</i> Pressure on bladder with vesical tenesmus.	See Acute Metritis.	<i>Gen'l Symptoms:</i> <i>a.</i> Pain in back and loins. <i>b.</i> Pressure on bladder or rectum. <i>c.</i> Painful and sometimes profuse menstruation. <i>d.</i> Difficulty of locomotion. <i>e.</i> Nervous disorders. <i>f.</i> Pain during sexual intercourse. <i>g.</i> Dyspepsia, headache, general lassitude and debility.
2. Touch.	<i>Touch:</i> <i>a.</i> Vagina hot and dry, unless from co-existing endometritis there be purulent discharge. <i>b.</i> Organ low in pelvis, os enlarged, cervix swollen, pressure on cervix very painful. <i>c.</i> Painful tenderness most apparent upon rectal touch and conjoined manipulation.	<i>Touch:</i> <i>a.</i> Enlargement. <i>b.</i> Tenderness.	<i>Touch:</i> <i>a.</i> Uterus low down. <i>b.</i> Cervix large, swollen and painful and os may admit finger. <i>c.</i> Usually tenderness.	
3. Specul'm	<i>Speculum:</i> <i>a.</i> Usually produces too much pain to be used.	<i>Speculum:</i> Nothing revealed specially.	<i>Speculum:</i> Confirms signs evinced by touch.	
4. Probe.	<i>Probe:</i> <i>a.</i> Produces intolerable pain and can not usually be resorted to.	<i>Probe:</i> <i>a.</i> Usually reveals some flexion or version, tenderness.	<i>Probe:</i> Reveals great sensitiveness before reaching os internum, but nothing beyond that.	

INFLAMMATION, DIVIDED AS FOLLOWS:

3. ENDOMETRITIS.		4. ENDOCERVICITIS.	
Acute.	Chronic.	Acute.	Chronic.
See Acute Endocervicitis.	<i>Gen'l Symptoms:</i> <i>a.</i> Leucorrhœa streaked, glairy and bloody. <i>b.</i> Menstrual disorders. <i>c.</i> Pain in back, groins and hypogastrium. <i>d.</i> Nervous disorders. <i>e.</i> Tympanitis. <i>f.</i> Symptoms of pregnancy. <i>g.</i> Sterility.	<i>General Symptoms:</i> <i>a.</i> Dragging weight and pain in pelvis, pain in back, groin and thighs. <i>b.</i> Rectal and vesical tenesmus. <i>c.</i> Purulent discharge sometimes bloody after 3 or 4 days. <i>d.</i> Tympanitis and tender abdomen.	<i>General Symptoms:</i> <i>a.</i> Dragging sensation in the pelvis. <i>b.</i> Pain in back and loins increased by exercise. <i>c.</i> Profuse irritating leucorrhœa, like boiled starch. <i>d.</i> Menses too scanty or v. v., too frequent or v. v. <i>e.</i> Nervous, irascible, moody or even hysterical. <i>f.</i> Digestion impaired, ultimately spanæmia, sometimes nausea, etc.
	<i>Touch:</i> <i>a.</i> Conjoined manipulation reveals tenderness of fundus.	<i>Touch:</i> <i>a.</i> Vagina hot and dry or covered with above discharge. <i>b.</i> Os gaping, cervix swollen and tender, body slightly enlarged, whole organ lower in pelvis than normal.	<i>Touch:</i> <i>a.</i> Os in normal position, may be enlarged, lips puffy or may be roughened. <i>b.</i> Pain results from placing the finger under the cervix and pressing upwards.
	<i>Speculum:</i> <i>a.</i> Reveals nothing special.	<i>Speculum:</i> <i>a.</i> Cervix puffy, swollen and red, fluid exuding from os either clear, albuminous looking, mucopus or stringy and tenacious.	<i>Speculum:</i> <i>a.</i> Long, stringy, tough, tenacious mucus, difficult to remove, exuding from os. <i>b.</i> Cervix not usually enlarged, may be puffy and swollen and very red, as if ulcerated, due to removal of investing epithelium.
	<i>Probe:</i> <i>a.</i> Patulous os internum. <i>b.</i> Uterine cavity prolonged. <i>c.</i> Tenderness. Withdrawal followed by blood.	<i>Probe:</i> <i>a.</i> Great tenderness throughout whole organ and removal followed by a few drops of blood.	<i>Probe:</i> <i>a.</i> Meets with obstruction at os internum. <i>b.</i> Does <i>not</i> produce pain by striking against the walls of the fundus, nor is its removal followed by blood or mucus.

Editorial.

THE CONTROVERSY BETWEEN MR. JONATHAN HUTCHINSON AND DR. TILBURY FOX.

In the third fasciculus of the *Illustrations of Clinical Surgery* which are now in course of publication, and which represent the results of Mr. Hutchinson's professional labors for the last twenty years, there is a plate which has attracted unusual attention. It is a portrait of a disease which is there termed *Cheiro-Pompholyx*; the illustration being accompanied by text in which the history of the case is detailed. Soon after the appearance of this fasciculus, the 8th part of Dr. Fox's *Atlas of Skin Diseases* was placed in the hands of the profession, and not a few were surprised to find on its 48th page the following "Note on *Cheiro-Pompholyx*:"

"Mr. Hutchinson has recently described and figured an eruption which he has termed *cheiro-pompholyx*, without, as he remarks, 'intending to imply a relationship to true *pemphigus*,' by that name, which is therefore a most unfortunate and misleading one. This eruption is nothing more nor less than that of which I first gave a full account in 1873, in the third edition of my work on skin diseases, under the designation of *Dysidrosis*; and the case from which Mr. Hutchinson's representation was taken was an exaggerated example of *dysidrosis* that came under my observation, and was sent to me by Dr. Russell Reynolds. The disease is not a *pompholyx*. It is moreover not limited to the hand, and therefore not entitled to be styled by the prefix *cheiro*. This disease is not produced by effusion of serum into the skin, as Mr. Hutchinson declares, but by distension of the sweat apparatus, and uplifting of the cuticle by sweat and the production of large vesicles or bullæ by the free secretion of sweat and the coalescence of smaller vesicles. I shall give further details when I come to represent the disease and to describe it further on; but it is strange that my original description of the disease should have been ignored."

Mr. Hutchinson in the text accompanying his illustration, admits that his patient was seen by Dr. Fox in the year 1869. The former has more recently published (*London Lancet*, July, 1876,) an article which may be presumed to embody his rejoinder to Dr. Fox's note. It is entitled, "Cheiro-Pompholyx—Notes of a Clinical Lecture on 'A recurrent bullous eruption on the hands,' written out in April, 1871, and now printed verbatim."

This is not the first occasion upon which two eminent men have contended for the honor of a lady's hand. What are the real merits of the issue? Viewing the case comprehensively, it becomes clear that to Mr. Hutchinson is due the credit of having first seen and described the lesions, as well as of appreciating their interesting features to the extent of ordering the first drawing of the hands executed. His colored plate of the disease is admirably finished, and incomparably superior to those which Dr. Fox is now editing.

The verbal descriptions of the malady, as given by both authors, are equally good. This is indeed nothing more than we have a right to expect, having in mind the recognized ability of the two gentlemen, and the fact that each was engaged in portraying precisely the same objective phenomena. We have had an opportunity of studying less exaggerated forms of the disease than that delineated, and are thus in position to know that the comparisons instituted by the two, (in which, curiously enough, often the same words are employed,) are strikingly accurate.

Per contra, it is to be remarked that Dr. Fox has, without question, established the correct pathology of the lesion; and to him is due the honor not only of this, but of appropriately and accurately naming the disease. The designation given by Mr. Hutchinson has about it the flavor of a musty antiquity. It recalls the "ancient and fish-like odor" of the period when a constellation in the heavens, as well as a skin disease, had a crab for a god-father. "Pompholyx" is a relic of the literature of Hippocrates, Celsus and Avicenna. And yet, by this term Mr. Hutchinson does "not intend to imply a relationship to true pemphigus." It would be curious and interest-

ing to learn the author's idea of the distinction between pompholyx and true pemphigus. Etymologically considered, one name likens a bulla to a blister, and the other to a bladder! The clinical distinction between the two, (if they are two,) is just about as definite. It is probably for this reason that the term pompholyx has nearly disappeared from the literature of cutaneous medicine. It is not to be found in the description of a separate disease in any of the more recent text-books, and is entirely omitted in Hebra's classification. The term pemphigus, on the other hand, is not only respectable for its antiquity, but has become prolific in its old age. Von Martius, in 1829, described ninety-seven varieties of the species, and Wilson mentions fifteen. It has been made to designate a wide range of disorders of the skin, from those produced by syphilis to certain curious tumors, having caseous contents, found upon the integument of a child. There has been too much of this unwarrantable use of names for each separate symptom displayed upon the skin. It has been the reproach of dermatology that it consisted of a nomenclature.

We may even go further than Dr. Fox, who objects to the prefix cheiro, on account of the non-limitation of the disease to the hand. For, while Mr. Hutchinson describes a red lichenous rash over the body of the patient, he does not attempt to explain its occurrence. But if Dr. Fox's pathology be correct, it can be readily understood how the rapid and free secretion of retained sweat, (forming bullæ upon the hands,) might be accompanied by hyperæmia of the sudoriparous follicles of the body elsewhere, producing an eruption quite similar to that of lichen tropicus.

Our object in calling attention to the publicly expressed difference of opinion of these two distinguished medical men is, in part, to commend the manner in which they have thus far discussed that difference. There have been no acrimonious charges, no offensive personal allusions in their written expressions. In other words, they have not only shown that they were gentlemen, but members of a profession whose obligations required their sustaining such relations to each other as the public would recognize and respect. Scientific

discussions can have but one object—the ascertaining of the truth. The question between two savants will always be, not “Which of us is in the right?” but, “What is the right, even if we be both wrong?” Thus conducted, every discussion has a value. Conducted with any other end in view, it becomes a public impertinence.

Dermatologists have a worthy precedent in these matters. In the now historical contest between Professors Hebra, of Vienna, and Pick, of Prague, on the question of the parasitic or non-parasitic nature of *eczema marginatum*, (*Archiv. für Dermatol. u. Syph.* I. 1, 2, and 3,) there was great difference of opinion combined with a spirit of fairness and courtesy, and an inflexible purpose to know the truth. The result was, that to-day the real character of the disease they had under consideration is distinctly recognized.

ARCHIVES OF CLINICAL SURGERY.

Such is the name of a new Monthly Journal to be devoted to the different departments of surgery exclusively. The initial number is before us. It has a very full table of contents and is neat and creditable in appearance. We are glad to see it so early give promise of a fulfillment of its pledge to give regular reports from the surgical wards of the hospitals in all our larger cities. But some of the hospital reports need to be made fuller and more complete to be valuable. While it is true that in reports of cases we only need a statement of essential facts to make them valuable for subjects of study and comparison, it is nevertheless true that nothing less than all the cardinal points will suffice.

Dr. Edward J. Birmingham is the editor, and Rutledge & Co. the publishers (102 W. 49th St., New York), and they insist on having four dollars in advance for each subscription. We shall exchange compliments with the new Journal every month and with great pleasure.

Correspondence.

HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

The following correspondence is self-explanatory:

UNIVERSITY OF MICHIGAN, }
ANN ARBOR, June 16, 1876. }

Rush Medical College, Chicago, Ill.:

TO THE DEAN. DEAR SIR — I am instructed by our Faculty to inquire whether your College will accept the tickets, and recognize the diploma of the Department of Medicine and Surgery, (the old regular school) of this University?

Frequent inquiries are made by our students as to whether their time will be allowed in other colleges, and we desire now to be able to state officially to them what the position of the leading medical colleges of the country is on this question. An early reply will oblige,

Yours, very truly,
E. S. DUNSTER, M.D., *Acting Dean.*

RUSH MEDICAL COLLEGE, }
CHICAGO, July 5, 1876. }

The following resolution, adopted to-day by the Faculty of this College, contains an answer to questions relative to Homœopathy sent to this institution by the Dean of the University of Michigan:

“*Resolved*, That the time and attendance of students upon lectures of the medical department of the University of Michigan, up to and including the last regular session of that College, may be recognized as part of the requisites for graduation in this College; but such time and attendance shall not hereafter be accepted so long as the teaching of Homœopathy, in whole or in part, shall be included in the course of study at that institution.”

J. H. ETHERIDGE, *Assistant Secretary.*

UNIVERSITY OF MICHIGAN, }
ANN ARBOR, Mich., July 10, 1876. }

J. H. ETHERIDGE, M.D.,

Sec'y Rush Medical College, Chicago.

DEAR SIR — Your favor of the 5th inst. is just received. In reply, I beg leave to ask again for more definite information on the point in question. The last clause of your resolution says, "so long as the teaching of Homœopathy, in whole or in part, shall be included in the course of study *at that institution.*" Homœopathy is taught in the "College of Homœopathy," but not in any way direct or indirect, in the "Department of Medicine and Surgery," which is the old medical school of this University. Our school and our students have no more association or relation with Homœopathy than your school and your students. The Homœopathic students, however, are required to listen to our lectures in the fundamental branches of medicine. The curriculum is unchanged, save that it is gradually being increased in severity of requirements, both for admission and for graduation. Will you therefore please advise me whether, by the words, "*at that institution,*" in your resolution, you mean the "Department of Medicine and Surgery," *i. e.*, the old medical school, or whether you mean the "University of Michigan," as a whole, which includes of course all its separate colleges, the Homœopathic among the rest. There has been, and still is, much misunderstanding of the situation in the University of Michigan relative to Homœopathy, and the wording of your resolution leads me to infer that you have adopted the opinion which has been very industriously circulated by our enemies, that Homœopathy is taught in our College, and that the Homœopathic professors are part of our faculty; in both of which statements there is not a grain of truth. Regretting to again trouble you with this matter, and hoping for a speedy reply,

I am very respectfully your servant,

E. S. DUNSTER, M.D., *Acting Dean.*

RUSH MEDICAL COLLEGE, }
CHICAGO, July 17, 1876. }

PROF. E. S. DUNSTER, *Acting Dean*:

MY DEAR SIR—Your note to the Assistant Secretary, relative to the clause, “at that institution,” which is contained in the resolution adopted by the Faculty of Rush Medical College, has been handed over to me for reply. In response to your desire for “more definite information,” I have to say:

First, That the legislative device of the Board of Regents of the University of Michigan fails entirely to obscure the fact that the Medical Department, in connection with two Homœopathic professors, is engaged in educating Homœopathic students to become Homœopathic practitioners.

Second, That when that device calls two Homœopathic professors a “Medical College,” or a “College of Homœopathy,” and requires the Medical Department to instruct the Homœopathic students on all subjects except Homœopathic therapeutics and practice, it practically establishes a copartnership of effort in the education and manufacture of Homœopathic doctors.

Third, That when that device requires the Medical Department not only to instruct Homœopathic students, but also to report to the Board of Regents upon the proficiency of those students; and when, upon that report, and a similar report from the two Homœopathic professors, the board proceeds to confer upon those Homœopathic students the degree of M.D., the enactment of that device essentially marries the Medical Department to the so-called Homœopathic College, and degrades it to the general level of fraud, delusion, and farce.

I have the honor to be respectfully and sorrowfully yours,
MOSES GUNN.

UNIVERSITY OF MICHIGAN, }
ANN ARBOR, Mich., July 19, 1876. }

PROF. MOSES GUNN, M.D.:

Dear Sir—I have the honor to acknowledge the receipt of your communication of the 17th inst., and in reply beg leave to intimate that it does not answer the question which I sub-

mitted to the Assistant Secretary of your College. Instead thereof you give me your opinion of the situation here, which is no doubt very valuable and instructive, but which was entirely unsolicited, and is in no way pertinent to my query. I shall esteem it a favor if you will inform me what is meant in the resolution of your faculty by the words, "in that institution." Or, to put the question even more definitely, do you, by these words, refer to the old regular Medical College of this University, or to the new Homœopathic Medical College?

I have the honor to remain very respectfully and cheerfully, your obedient servant.

E. S. DUNSTER, M. D.,

Acting Dean Dep't Med. and Surg. Univ. Mich.

RUSH MEDICAL COLLEGE, }
CHICAGO, July 20, 1876. }

PROF. E. S. DUNSTER, *Acting Dean:*

MY DEAR SIR—If you are still in doubt as to the opinion of Rush Medical College, viz., that your Medical Department and two Homœopathic professors are educating and making Homœopathic doctors, and that thus, *in effect*, Homœopathy is taught by the "old" and *formerly* "regular" Medical Department of the University of Michigan, we must leave you to the comforts of your doubt as to our meaning in the term, "at that institution."

Respectfully and still sorrowingly yours,

MOSES GUNN.

Hospitals.

COOK COUNTY HOSPITAL, SURGICAL DEPARTMENT.

Service of DR. FREER.

May 23. Dr. Freer presented and made remarks on the following cases:

1. *Fracture of Clavicle; outer third.*

Dr. F. remarked that he should apply a dressing devised some years ago by himself. The method consists of the proper application of two strips of adhesive plaster. The first piece, three and a half to four inches wide, is a sling, and serves to raise the arm. It passes beneath the elbow, and laps over the opposite shoulder to a point below the nipple and from the same level behind. The second strip, four inches wide, is an axillary band. It is wrapped at one end firmly on the upper part of the arm, then carried across the back beneath the axilla of the opposite side and returned in front to near the point of starting. This fixes the shoulder back. A wedge may be put beneath the axilla or not; but when the case is one of the outer third it is hardly necessary. It is well to measure with a roller bandage before cutting the strips. The warmth of the body will be sufficient to attach every portion except the ends; until they are warm and adherent, a roller had better be applied over the whole. This is one out of perhaps fifty different ways of dressing fractures of the clavicle. It is sometimes put down as Dr. Sayre's method; but a diagram and a report of cases in the records of the Illinois State Medical Society for 1858, show that it was described here four years earlier than the date of Dr. Sayre's invention, which was merely a repetition.

2. *Elephantiasis.*

A middle aged man of apparently good constitution, presented this condition in the right leg. The leg and foot appeared like a cylinder. Dr. F. remarked that the pathology must be understood before rational treatment could be had.

These appearances did not imply inflammation, but rather a hypertrophied condition of the skin and connective tissue beneath. In consequence of increased vascular supply, there is a condition of hypernutrition with actual increase of tissue, as a result. Dr. Carrochan maintains that enlargement of the arteries of the part attends the affection, and upon this is based his treatment by ligature of the main artery of the limb. In fact, ligature is the leading treatment of the day, and is supposed to have the effect of diminishing the exalted nutritive action in the part, and thus serves to reduce the hypertrophy. You may observe that the skin has been affected with a chronic eczema and is being treated with "tar ointment" with apparent benefit. The results of ligation thus far have not been encouraging, the affection generally returning in a short time. Dr. Carrochan claims one cure, which was the first operation of the kind on record. Bryant also asserts a cure in a case described in his work on Surgery. Treatment by elastic bandaging has its advocates and is worthy of trial.

3. *Amputation of Foot for Frostbite.*

A young man with a thrifty eruption of acne on his face. The frostbite occurred more than a year ago. Spontaneous separation of the toes took place at the metatarso-phalangeal articulation. He says the toes dropped off in three days as clean as it is now. This is almost incredible, for tendons do not separate so readily. Together with ligaments and connective tissue, they are the last to give way. However there has never been any interference, and we have now an open sore and granulations. So much nature can do. She would have done a little better here if she had had longer flaps. It will be necessary now to excise the ends of the bones. It may be that a better surgical display could be made by going back to the point of Hey's or Chopart's operation. But the good surgeon never does any thing from such a motive. It is a rule in surgery, applying to all amputations, to save all you can. The matter was not so much insisted on ten years ago. We will expose the bones, and first see where we can gain

sound bone and sufficient skin to form a flap, rather avoiding the articulations. The tissues were dissected up and the metatarsal bones divided with a saw.

1. *Fracture of Right Clavicle.*

May 26. A strong laboring man received a direct stroke. To-day the dressing will be by Fox's apparatus, consisting of a sleeve of muslin and a padded ring for the opposite shoulder. The wedge for the axilla on the affected side, which Fox recommended, is of but little use. For ease and simplicity this dressing has no superior. Adhesive strips do not serve a very good purpose in hot weather for the perspiration throws them off.

2. *Re-amputation of the Leg; lower third.*

A young man, pale and rather unhealthy in appearance. The leg was amputated a year ago last July. It was reamputated the December following. It has since been treated with a great deal of care. The flaps, failing to heal over, and appearing tight and bound down, were at one time dissected up and drawn over the liberated end of the bone again. But still it refused to heal. We now have an ulcer; the bone projects a little. A granulating surface, not thicker than a thumb nail, covers it. If we go back to healthy bone and healthy skin, we may fix it so it will heal. Long flaps often turn out as this has done. They always retract sufficiently and are never too long. The amputation was swiftly performed, about two inches of bone being removed, together with the old cicatritial tissue. Antero-posterior flaps were made. Dr. F. remarked that sutures were of doubtful utility and sure to be a source of irritation. Generally, after amputations, there is more or less oozing of blood with inflammatory exudation, which, if the flaps have been closed by suture, causes tension sufficient at times to arrest the circulation and lead to gangrene and sloughing. Even without sutures, it is remarkable how the flaps will adapt themselves and bring their edges into apposition. Of course where you expect union by first intention, the edges must be adapted at first,

either by sutures or adhesive plaster. But in hospital practice we hardly expect healing by first intention. In fact open treatment of wounds is rapidly gaining ground, especially in Germany. The worst enemy the surgeon has to encounter is putrid and putrefying animal matter. This danger is so great that it has led to exaggerated endeavors, and we fear sometimes ill-directed. Some surgeons enter the operating room behind an advance guard of carbolic acid spray, in the vain hope of destroying the invisible spores and germs that lie in wait for their victim. Dr. F. continued by saying that he did not very much believe in the doctrine of the destructive influence of microscopic living things. It is not these germs we are after, but the result of putrefaction. A solution of organic matter is a study from first to last. But there will be no living forms until there is putrefaction. If we follow it up from the day when putrefaction begins, we shall discover coming one after another different forms of life, the evolution of species out of the ruins of others; when last changes have occurred the specimen will be pure of putrid matter. It is a great mistake to think of fighting living spores or living germs. We have to fight putrid organic matter, and this must be done by thorough cleanliness, and by efficient and constant irrigation of the part with proper antiseptic fluids. There must not be recesses and hiding places in which the enemy may lurk, but every part must be accessible to the means of ablution.

May 30. Dr. F. remarked of the leg amputated at the last clinic that the patient had an attack of septicæmia. He had three strong chills in quick succession, followed by profuse perspiration. He had been in a very bad-state yesterday; but he had had the same symptoms after the previous operation; so it was to be hoped he would yet do well. There is a difference between septicæmia and pyæmia. The first is the contamination of the system with fluids in a state of putrefaction. A system sufficiently vigorous may cast off the poison, but if the case goes on to pyæmia we have a graver state of things. Local inflammation takes place, as in the lungs, liver, etc., leading to purulent collections, with grave constitutional disturbance, usually ending in death.

1. *Carious Astragalus. Removal.*

A healthy looking young man, eighteen; fireman to an engine. Considerable swelling surrounding the outer malleolus; a fistulous opening just beneath another posteriorly. He says the instep gave him pain last September—the first notice that anything was wrong. In a month and a half the swelling had developed into an abscess, which was opened. He is unable to assign any cause, but it is probable there was some injury to the joint or its appendages; possibly even the bones of the articulation. These bones are quite vascular, and ever so small a rupture of a blood vessel may lead to inflammation which may go on, and at last get to a serious result. The difference between inflammation of bone and inflammation of soft tissues is principally one of time and degree of destruction of tissues that follows. Caries of the tarsus is a very complicated affection. The ankle joint proper is less frequently affected than other portions below. The trouble here is probably between the astragalus and the os calcis. We will proceed to give this foot a trial for its life. It shall have the benefit of a doubt. The attempt will be made in every way to save it in some shape. Dr. F. made a crescent shaped incision, commencing in front of the malleolus, deeply dividing the tissues to the inferior surface of the astragalus. He remarked of Esmarch's band that it was of incalculable value in surgery, preventing any interference from blood, securing a perfectly dry wound. The astragalus was soft and carious, and was scraped out easily with a bone gouge. The whole was involved, and the whole had to be removed. It was the work of about twenty minutes. Communication through the walls left between the cavity and the inner surface of the instep was made and a pledget of oakum drawn in to secure perfect drainage. A plaster of Paris splint was applied to the anterior surface of the leg, instep, and dorsum of the foot, afterward a fracture box.

June 2. The foot operated on for caries at the last clinic is doing splendidly. There is less pain than before, and we may hope for a good result. The cavity will gradually be filled up.

1. *Railroad Injury of Foot.*

A lad attempting to steal a ride on a freight train got his big toe crushed off and considerable contusion to the foot. It has been left that we might see how much could be saved. The first and second phalanges have dropped spontaneously, leaving a large open ulcer from the inner surface to the middle of the dorsum. The operation consisted in disarticulating the whole of the first metatarsal bone. Dr. F. repeated that it was a cardinal principle now-a-days to make the least sacrifice possible. It has become an axiom in surgery that the ratio of accidents increases as operations go toward the body. There is more danger in the ankle than in the foot; more in the leg just above than in either. Always taking into consideration the safety of the patient and a good result, it is sometimes a nice question, therefore, to determine how much to take. This patient is young and vigorous; the growth of tissue is going on very rapidly. It will be left to heal by open granulation. Dressing of oakum.

2. *False Anchylosis of Knee.*

(April 14. Dr. Bogue.) The patella is free, but the position is about the same as before any thing was done. Drs. B. and F. have been studying this case a long time, and are very anxious to straighten it. A full board of surgeons to-day decided to bore the femur and afterward break it. The drill entered about the middle of the lower third. A dozen perforations of the bone were effected through three punctures of the skin. When the softening which results from the perforation is sufficient, the bone will be broken and the limb straightened enough to have the improvement desired.

1. *Injury of Elbow.*

June 6. Child from the dispensary. We should never fail to ascertain whether the joint is capable of all its motions, and never be afraid of hurting the patient. If there is much pain use chloroform. Familiarity with the joints should be acquired above all things. There is nothing in this case but a sprain. Even here we are liable to false anchylosis from

inflammation. The advice of Hamilton is good. We should move the joint in a week whenever there may be danger of ankylosis; flex it, no matter what the injury. Passive motion may save a suit for malpractice.

2. *Injury of Elbow.*

(May 9. Dr. Powell; April 26, Dr. Bogue.) Youth. Here there was a fracture of the external condyle. The head of the radius was removed from its natural position. The hand cannot be carried to the mouth. Passive motion continued.

3. *Dislocation of Sternal End of Right Clavicle, Forward.*

A man past middle age. Two weeks ago he fell down stairs all in a heap. Dr. F. remarked that this injury was very rare. This was the first case he had ever seen. There is some hard swelling, as if there had been a fracture and callus had been thrown out. Whenever he moves the shoulders back the free end is thrown into position and the irritation produced by every movement doubtless causes the indurated swelling. He is to be kept on his back. No other treatment is called for.

4. *Chronic Rheumatic Arthritis of Knee.*

An elderly man. Dr. F. remarked that joints are sparsely supplied with blood vessels. The tissues entering into their formation are of a low order, and are less capable of resisting the vicissitudes of temperature and other insults than those with higher endowments of vitality and nutrition. In this case we have the results of protracted rheumatic disease. The joint is not ankylosed but is stiff. It moves dryly and with creaking sounds. There is little proper secretion from the synovial membrane. Here on the inner side we have a calcareous deposit. The affection has lasted years and we cannot expect a cure. The most rational thing to do is to place the part in a state of immobility and protect it from the vicissitudes of temperature with cotton wadding or fur. The joints of old persons once in a pathological state, require constant protection. Warmth is of the first importance to young and old. Rubbing is of great importance, for it accelerates the

circulation and consequently nutrition. There are more salutary effects from *massage*, as the French call it, than the medical profession are aware of. The treatment ordered was a plaster of Paris splint lined with cotton batting, and to go about with a cane.

5. *Chronic Inflammation of Knee.*

A well formed and well nourished man, thirty-three, a cripple for the last three years. The knee is greatly enlarged. There is a sinus beneath. This case illustrates a large class. The hospital is always stocked with them. It is very important here to know whether the inflammation at first was of the synovial membrane, or outside the joint. If it had been in the bones primarily, there would have been destruction before this. Besides bone disease is more an affection of youth. If it had commenced outside, it should have been well long ago. It was doubtless of the synovial membrane, and went on without any great destruction; a chronic sub-acute case falling short of suppuration, passing the bounds of normal nutrition only a very little. There is probably a granulated or fungous state of the synovial membrane, described as gelatinous. Brodie first described the affection in these terms. It is merely descriptive of the appearance of the tissues within the joint in chronic inflammations of the knee. There is very little ankylosis, and yet he is unable to walk or to use the leg. We are giving the joint a trial, bringing all the evidence to bear upon it, and if at last there should be any doubt the joint ought to have the benefit. We propose now to try the effect of extension for a little while, then we shall put on a plaster of Paris splint. Added to this we shall inject carbolic acid, two per cent. Prof. Haeter of Germany, is the author of this treatment.

6. *Varicose Veins.*

A young carriage maker. The right internal saphenous vein is at fault. The blood is not supported in little segments between the valves, as in health, but in a long column. Dr. F. remarked that after many years experience he prefers the

treatment by pins and ligatures to any other method. We want to try to fix the vein between the thumb and finger. At first a vertical insertion of the pin is required; then a sudden pass beneath the vein. Small pins are best, but not too small. The ligature should be drawn sufficiently tight to strangulate the vein. That is all that is needed. The injection of the tincture of chloride of iron has caused disaster in two cases in this hospital, and for that reason is disliked. Any tyro can insert the pins. The time to remove will depend on the effect. If the blood in the segments of the vein included is reduced to a hard coagulum, the time has sufficed. It will be five to seven days. He should be kept in bed; fomentation may be necessary, but the degree of inflammation will depend on the case. Some have such tissues that they resent any thing.

1. *Ulcer of Leg, Following a Burn.*

June 9. Dr. F. remarked that the history of ulcers, properly understood, is the key to that of most injuries of the body. Their study affords more knowledge as to the processes of healing than can be acquired in any other way. In this case the surface of the ulcer has a watery or a gelatinous character. This is not healthy. As soon as the granulations become firm we shall try what virtue there is in grafting.

Dr. F. showed the method he has devised for irrigating wounds, and thus preventing putrid absorption, illustrating it by the case of excision of the astragalus, (May 30.) The leg is suspended in a sling supported by a frame-work above the member, on which is a basin containing a solution of alcohol. In this rests the end of a quarter inch rubber tube, which leads downward to the ankle, and through the wound to the opposite side. The part in the wound is perforated here and there, in order to secure perfect irrigation. The result is a constant dripping into another basin situated beneath. The wound seems perfectly clean, and there is not the slightest evidence of inflammation in the part, nor the least odor.

Translations.

THE ACTION OF OBSTETRICAL FORCEPS.

(From the French of Prof. E. Hubert.)

By FRED. J. HUSE, M.D.

(Continued from the July Number.)

Resistance of the maternal tissues. The strain of traction is exerted upon the head of the fœtus and upon the maternal organs. When traction is made exactly in the direction of the axis, and when the diameters of the head are less than those of the pelvic canal, the organs of the mother have only to sustain the friction resulting from its passage; but if the head is too voluminous to readily traverse the pelvic canal, the traction becomes transformed into lateral pressure, the resistance of the pelvis serving to compress the head. Draw a handkerchief through a ring; the resistance of the ring crowds the linen together very closely during its passage. A force of fifty kilogrammes when well directed produces, according to M. Chassagny a pressure against the walls of the pelvis of thirty kilogrammes. Traction becomes decomposed, therefore, in part at least, into compressions proportional to the force exerted, and these, as my father has demonstrated, become as much greater as the departure of the traction from the direction of the axis of the strait which is to be passed.

Whether by accident or design, tractions are almost always accompanied by lateral movements. Now in giving to the forceps these movements, the obstetrician transforms it into a lever which is as much more powerful as his arm in relation to the resistance is rendered longer. The carter, says M. Chassagny, whose harness is too weak for climbing a steep hill, makes his cart turn upon one wheel, then, stopping in its turn that wheel which has progressed, he seeks by reversing the manœuvre to advance the one which previously furnished the fulcrum. But a glance of the eye upon the road is sufficient to appreciate the effect produced upon the spot which furnished the first fulcrum; in addition it is easily understood to

what extent the repetition of these manœuvres might be expected to compromise the solidity of the vehicle. And he adds: lateral movements assist the accoucher in the same manner that the key assists the dentist, while they are no more favorable to mother or child than the key to the gum, alveolus or tooth. These graphic images are perhaps not entirely exact in regard to the mechanism of the lesion, but if they have the mistake of exaggerating the dangers of lateral movements, they have at least the merit of attracting attention to the new force these produce, which assists the effort of traction.

Regarding the extent to which efforts of extraction may be carried without imprudence, though it is a matter of great importance to know the exact limit, it is utterly impossible to state it precisely; certain natures resist throughout, and others yield to the slightest shock. For want of precise information we shall endeavor, in order to avoid an excess either of timidity or temerity, to give an approximate idea of the pressure which may be supported by the osseous inclosure and soft parts of the mother.

Soft parts. Claude Bernard has demonstrated the physiological unity of similar tissues in the animal series; the properties of the genital organs are therefore nearly the same in woman and in our larger female domestic animals. Now the veterinary surgeons frequently employ upon cows, without ever producing mortification of tissues, formidable powers: the windlass, tackle, traction of ten men, etc., and if the animal sometimes succumbs it is never when the efforts have been the most violent, but when the labor has been too prolonged. Moreover, Jobert de Lambelle, who made a special study of the vesico-vaginal fistulae of women, declares that they are invariably the consequence of too protracted delivery, never of a seasonable application of forceps.

It would appear, therefore, that the soft parts of women ought to support considerable pressure without becoming gangrenous, providing that it is not too protracted, and providing, let us add, that the vitality of the tissues is not already affected by a long labor or by dyscrasias of diverse nature.

Osseous parts. In the course of his experiments, Joulin

once saw the pelvic circle burst apart under a force of 288 kilogrammes, and M. Delore has tried to prove that one could pull with a force of 200 kilogrammes without danger of producing any rupture. We are acquainted with a case of pubic diastasis produced by the traction of an obstetrician simply pulling upon the forceps, and it is not so very wonderful, since, in cases which necessitate employment of much force, the bones have suffered either from rachitis or mollities ossium, and they no longer possess the normal consistence. Thus, it is not allowable, in regard to the osseous parts, to make use of the amount of force which the soft parts might appear to be able, in certain circumstances, to support without excess of danger.

Muscular force. Each obstetrician should know with exactness the force which he is capable of exerting by means of the forceps, since the mother and child are to sustain the result. The following are the averages furnished by three generations of our pupils pulling upon the cords attached to a small dynameter of Matthieu: they are higher than those indicated by Joulin and M. Delore: as said Julius Cæsar, *fortissimi belgæ* :

One man — pulling solely with the arm, without fulcrum, 65 kilogrammes; the foot taking support at the height of the instrument, 147 kilogrammes.

Two men — pulling without fulcrum, 110 kilogrammes; with fulcrum upon the floor, 240 kilogrammes.

Adding to these figures as much as is really added by giving the instrument lateral movement, it will be seen that by using two hands upon the forceps there may be obtained an array of force quite appalling.

Muscular force, though excellent for overcoming slight resistance, becomes of less use in surmounting those more serious. In struggling against a considerable obstacle our efforts become sudden, abrupt, jerking; like the mired horse, we strain every muscle. The muscles contract forcibly for several seconds, then relax, and their energy, at the outset most vigorous, wanes rapidly towards extinction in the fatigue at the end of a short series of interrupted efforts that become

less and less powerful. It is evident that tractions of this sort, violent, sudden, jerking, can neither be favorable to the head of the child, nor the tissues of the mother, nor the engagement of a rounded tumor in an elliptical canal, and that a regular mechanical force which can be measured by the dynameter and sustained is far preferable. Joulin has shown experimentally that in those instances where manual force developed by two men was sufficient to engage the head of the fetus in a given opening, a sustained mechanical traction produced the same result with far less force. Now this is a fact of extreme importance, in our opinion, for to economize force is, for mother and child alike, to economize compression.*

The ear is no more satisfied by a scale, the last note of which is not given, than is the mind by a series of propositions lacking a conclusion. We shall therefore give the note of the octave and conclude.

We are opposed to placing the forceps upon the head of an infant at term retained above a strait of less than seventy-five millimeters. This would be followed by one of two things: either the crushing of the head or breaking apart the pelvis, for the bi-auricular cranial diameter measures seventy-five millimeters and is irreducible.

With the pelvis offering at least a space of seventy-five millimeters between the points most nearly approximated, the head can pass with rigor, but upon the condition that the cranial vault changes form, and, when it measures nine centimeters, that the reduction should be about one and one-half centimeters. Nature,† as we have said, often accomplishes this

* "Whatever," says Joulin, "may be the prejudice against novelties, there is yet a result well worthy to arrest attention: it is that the 'aid forceps' extracts the fetus with an expenditure of force less by 30, 40 or 50 kilogrammes than that necessary in manual tractions, which nevertheless failed completely in instances where the instrument succeeded." The superiority of continued traction, compared with intermitting traction, has been demonstrated by calculus and by the experiments of M. Marcy.

† Among others, we have seen two children born under these conditions: one had facial hemiplegia, with the other the pressure of the sacro-vertebral angle had produced a limited gangrene of the scalp, only cured three weeks after birth.

reduction without killing the child, and when she is disposed to undertake it, she should be let alone, since she will do better than we. But the instances where the uterine forces triumph happily over such obstacles are exceptional, and generally art is obliged to come to the rescue of the woman in peril.

Let us give a rapid glance at the resources at its disposal. Certain authors have advised version; but this is to substitute for the difficulty an operation which is not without gravity. Prolonged waiting and ordinary forceps used with energetic muscular tractions, deeply compromise the child and are not without danger to the mother. Gastrotomy is an extreme measure to which the obstetrician only resorts in the most urgent cases; and, regarding symphyseotomy, it is nearly of equal danger, so that the woman has the incontestable right to decline the heroic self-renunciation of a consent to the risks of either operation. Less perilous to the mother than these two operations, embryotomy is none the less open to serious objections; its legitimacy is debatable; moreover it is sometimes fatal to the mother, and such being the fact, what woman would authorize the attempt, or what practitioner would dare to propose it, if art presented a resource for the occasion which was less perilous for the mother and was not surely fatal to the child?

The Flemish lever * is perhaps the most suitable instrument in difficult circumstances which can be obtained. Where the pelvic diameter is too short it can be applied upon the corresponding cranial diameter, but it requires a prudent and skillful hand. Still nearer the reach of the generality of physicians than the lever, and appearing to us of all means proposed the least perilous to the child, is careful mechanical traction of a moderate degree, regulated by a dynameter. It accomplishes the maximum of result with the minimum expenditure of force, and consequently affords a happy improvement upon manual traction, which is accomplished by more or less violence.

We are convinced that when there is prepared a comparative statement of labors terminated by mechanical force and

* Lever of the third class.

those in which manual force is used, in pelves of 75, 80 and 85 millimeters, the result will confirm theoretical assumptions, and that then—in spite of certain authorities deterred by routine, yet unable to prevail against reason and experience—the stubborn, violent traction of one obstetrician, and *a fortiori* of two, upon the forceps will be abandoned for means at once more efficacious and more gentle. *Non vi, sed arte.*

We have on two occasions applied the aid-forceps of Joulin,* once in a pelvis which we had estimated at 76 millimeters, but which really only measured 73; the other time in a pelvis of 75 millimeters. We terminated the labor with a force of 40 kilogrammes—that is to say, a force one-half less than if we had pulled with our arms—on one occasion in an hour, on the other in twenty-two minutes. The mothers made no complaint against the action of the apparatus and had most prosperous confinements. The infants could not be resuscitated; though the heart was still pulsating in both of them, the nervous centers had suffered so severely that respiration could not be established. Without entering into any criticism upon the imperfections in traction apparatus which time will doubtless remove, there is a general statement which we think should be made at this point. Continuity seems to us to be an unfavorable condition of mechanical traction, alike for the maternal tissues and the head of the child. Nature does not thus exert its forces without intermission; each pain is followed by an interval of repose, a lull during which the circulation which has just been much embarrassed if not interrupted, may resume its course. In future, when employing mechanical apparatus, we shall take care, at the risk of slightly prolonging the operation, to detach the cords from time to time.

* Bulletin de l'Acad. royale de méd. de Belgique, T. IV., 3e série, no. 3.

Correspondence.

[The following communication was received too late for insertion in its proper place.—ED.]

REPLY TO DR. B. C. MILLER.

MESSRS. EDITORS: It is rather difficult to frame a satisfactory reply to such a tangle of blunders as I find in the letter of Dr. B. C. Miller, published in your last issue. Nevertheless as the Doctor aims his blunderbuss mainly at me, I will with your permission, reply as briefly as possible.

Divested of its verbiage and translated into English, the Doctor's letter seems to mean, (1st.) That he was the originator of my investigations in relation to cholera in 1873, and that the work was carried on under the supervision of the Board of Health, whereof he was then Superintendent. (2d.) That the Board of Health "paid all expenses" connected with these investigations; and this proposition is so put as to lead your readers to believe that I was paid for the work. (3d.) That I have been guilty of discourtesy toward Dr. Ely McClellan, of the U. S. Army.

In support of the first proposition Dr. Miller cites the appointment of Dr. Simons as Assistant Sanitary Inspector, and the object of his appointment in the following language: "Dr. Simons was appointed Assistant Sanitary Inspector, with instructions to investigate fully the causes of the disease, and to make *post mortem* examinations of all cases, where one could be obtained, as I desired to have an examination made of the specimens obtained." (*Journal & Examiner*, for Aug.)

But on the 31st of March, 1874, in his *official* report, Dr. Miller writes as follows, concerning Dr. Simons' duties: "August 10th, (1873,) upon the retirement of Dr. Rauch, I was appointed Sanitary Superintendent, and visited the district" (*i. e.* the cholera district,) "for the first time in company with Dr. Simons, a physician residing in the district, and visited some ten or twelve cases. Dr. Simons was appointed *Special* Sanitary Inspector, with directions to superin-

*tend the enforcement of needed sanitary measures in that district, especially in the matter of daily disinfection, which was rigidly enforced on all premises."** (Italics are mine.)

I find the same declaration in regard to Dr. Simons, both in the "Report of the American Public Health Association," Vol. I., page 263, and also in the "Government Report on Cholera."† In his paper in the Government Report, Dr. Miller says, "Dr. Simons was appointed a *Special Sanitary Inspector to enforce the sanitary regulations of the district.*" (Italics are mine.)

It is scarcely necessary to call attention to the inconsistency of these two sets of "instructions," or to the fact that it was impossible for Dr. Simons to execute both; but it is proper to note that in his *official report, made more than two years ago*, Dr. Miller declares that Dr. Simons was charged with the "enforcement of sanitary measures," disinfection, etc., but he was *not* directed to "investigate the causes of the disease," or make *post mortems*. The conclusion is inevitable that in Dr. Miller's recent letter the instructions to Dr. Simons were revised to fit the present aspect of the case.

Dr. Miller states in several places that my examinations were made *at his request*. In this he is entirely mistaken. Before he made any "request" at all of me, my specimens were prepared and mounted, and my report partly written. *Then* he "requested" me to furnish my report, or an abstract thereof, that he might present it to the "American Public Health Association," then about to convene in New York.‡ With the approval of the then Secretary of the Chicago Society of Physicians and Surgeons, I did so; the paper was read before the Association, and published in its "Transactions" properly credited to me. On the evening of February 9th,

* Report of the Board of Health of the City of Chicago, for 1870-71-72-73, page 26.

† Cholera Epidemic of 1873, in the United States, page 215.

‡ This Association met about November 10th, 1873, (its officers were elected on the 13th,) whereas the Committee of the Society of Physicians and Surgeons was appointed August 18th and my investigations were commenced August 28th.

1874, I presented my completed report to the Society of Physicians and Surgeons. The meeting was quite fully attended, and I think Dr. Miller was present. The Society passed a vote of thanks for the report, and at the same time voted that the same be published in some medical journal. Some time after this Dr. Miller called upon me at my residence, and asked for the report that he might incorporate it in the Board of Health Report, then in course of preparation. At that time Dr. Miller *first* intimated to me that he was the real prime mover of all the investigations, and that he could rightfully claim my report. I remember that I felt and *expressed* some surprise, and I remember also that I felt considerable incredulity that I did *not* express. But as I cared little where the report was published, and as I regarded the vote of the Society of Physicians and Surgeons, above alluded to, as complimentary rather than mandatory, I yielded to the Doctor's solicitations, and allowed him to take that portion of the manuscript *which contained the record of my observations*. The first five or six manuscript pages he did *not* take. These pages contained the history of the origin of the investigations merely, and were of no scientific importance. Supposing, as a matter of course, that Dr. B. C. Miller, an honorable gentleman, and Sanitary Superintendent of the City of Chicago, could be trusted to say what was fair, true and right, and knowing as I did, that my preliminary remarks were needlessly prolix, especially for publication in a public report, I permitted the Doctor to omit the introductory pages, *as I wrote them, because* I believed that he would in fewer words place the *credit for the prosecution of the work* with the Society of Physicians and Surgeons, whatever he might say of himself as to originating the *idea* of the investigations. The proofs of that portion of my report which was published I saw; the proofs of Dr. Miller's remarks introductory thereto I did *not* see. Dr. Miller's official report, in its completed form, (of which mine formed a part,) I first saw after it was *bound and ready for circulation*.

In all this I am well aware that I have laid myself liable to criticism. I have only to say, however, that I did not deem

it necessary to prescribe conditions that the Sanitary Superintendent of Chicago should do what common courtesy demanded, or institute a system of *espionage* to prevent what I did not fear or suspect.

Secondly—Dr. Miller asserts that the Health Department “paid all expenses connected with the examination,” and this statement is repeated in a manner so loosely significant as to convey the impression that the Board of Health actually employed me to make investigations, and paid me for it. The “expenses connected with the examination” were merely nominal; but they were paid out of my own pocket, and the money has never been refunded by any one. It was, in fact, a matter so trivial that I have never thought it worth mentioning. As to the plates of which the Board of Health “retains possession,” they consist of six small wood cuts; they were paid for, I suppose, by the City of Chicago. They are in the “possession” of the Bulletin Printing Company of this city, (or were at a very recent date,) whereof Dr. B. C. Miller is a thrifty partner. As the Health Report was printed by the Bulletin Printing Company, I suppose the wood cuts were left in their vaults for safe keeping. Believing that they might be of some use to me and of no use to the City of Chicago, I asked Dr. Miller for them in September last. He gave me an order on the Bulletin Printing Company for them, on condition that I would return them after using them; but the order was accompanied by a verbal admonition that if I purposed using them on my own account I ought to get my printing done at the Bulletin Printing Company. I still hold the order, and said company probably “retain possession” of the plates.

And this is the real story concerning the “pay,” so far as I am concerned.

Thirdly—I regret exceedingly that Dr. McClellan’s name has been dragged into this business. It is useless for Dr. Miller to try to divert attention from the real issue by making Dr. McClellan “party defendant;” besides, it is, to say the least, something less than magnanimous. In our article in the May (*not* June) number of this Journal, it never occurred

to either Dr. Hyde or myself that we were complaining of Dr. McClellan, and certainly nothing could have been further from our intentions. For myself, I desire to say in the most positive terms, that Dr. McClellan's attitude toward me has so far as I know, been one of entire courtesy and liberality. That there may be no possibility of misunderstanding in the future I take this occasion to say that Dr. Hyde and I entertain the belief that Dr. B. C. Miller is the one person, and the *only* person, in fault as to the misappropriation of the work done by the Chicago Society of Physicians and Surgeons; except in so far as blame may attach to me personally, in that I trusted Dr. Miller too far. During the prosecution of his investigations in regard to the cholera epidemic of 1873, Dr. McClellan visited Chicago, and addressed the Society of Physicians and Surgeons, by special invitation. At the close of his remarks I was introduced to him, as were many of the members of the Society, and I remember that he spoke of my report in a complimentary manner. I *now* have a very indistinct recollection, also, that he intimated a desire to use my material in *his* report, then in course of preparation, although this fact had quite escaped my memory, until this recent discussion served to recall it. Exactly what passed between Dr. McClellan and myself, I do not now remember; but I believe that I went away with the understanding that I had been politely invited to furnish my report for the Government Report, but that nothing definite had been said on either side. I remember also, that I felt a little surprised because I did not subsequently hear from Dr. McClellan, on the subject. According to a letter from Dr. McClellan to Dr. Miller, the former wrote me "several times on the subject," but I have never received a letter, or a line, from Dr. McClellan in my life, on this or any other subject.

As a matter of fact, I think my investigations received more credit than they deserved, but however valuable or valueless they may be, they were *not* undertaken or completed at the "request" of Dr. B. C. Miller; he was *not* in "constant communication" or any other kind of "communication" with me while my studies were in progress; he never paid me for

making the investigations, directly or indirectly, and, in fine, he never had anything to do with them from first to last.

The silly personalities in which Dr. Miller indulges, I pass by, because it is too small business for a man who has anything else to do, to notice them.

I. N. DANFORTH.

Chicago, August 5, 1876.

Summary of Progress in the Medical Sciences.

[Superabundance of "copy" has compelled the editors to allow but little space to this department this month. The intention has been, and still is, to make the SUMMARY OF PROGRESS, which is the result of much labor, one of the most prominent features of this JOURNAL.]

I. PRACTICAL MEDICINE.

1. *Cure of Tetanus by Mechanical Measures.* CALASTRIE. (*Gazzetta Medic.* Lombardia, No. 27.)

A patient, who was convalescent after various attacks of hæmorrhage from the skin and mucous membranes, was wounded in the sole of the right foot and had partial tetanus result. There was considerable rigidity of the muscles of the cervical region and those presiding over the movements of the jaw. Sulphate of quinia and chloral were followed by temporary relief only. Then C. thinking that the difficulty of injecting sufficient nutriment was due to the localization of the tetanic affections in the muscles named above, concluded to overcome the rigidity by forced movements of flexion, extension and rotation. This was continued till voluntary movement became possible. The jaws were then separated little by little from day to day, until they could be more and more widely opened, and the patient could himself take solid food. This treatment continued during the month of August, and by autumn the cure was completed.

2. *Case in which foreign bodies were inserted in the brain with suicidal intent, and retained several months.* W. B. CARPENTER, M.D. (*Am. Jour. Med. Sci.*, April, 1876.)

The patient was a State prison convict, twenty-eight years old, who was insane. He was a strong, healthy man, with a well developed brain, weighing 56 ounces. Two years before his attempted suicide he had been

discharged from an insane asylum where he had spent a year. During the time subsequent to this discharge he was kept in the hospital of the prison. He was caught one night stuffing No. 20 broom wire into the cavity of his cranium through an opening in the skull he had made, about an inch above the right ear with an awl. Over four inches of the wire was withdrawn. A month later he drove an awl into his brain through the skull near the top of the head. Soon afterward he was found thrusting another piece of wire laterally through his skull, and it is known the piece reached through to the opposite side of the brain. From this there only resulted slight paralysis, which in two weeks was nearly well. His desire to die now ceased. Months afterward he, as it was believed, by pure accident, took an overdose of morphine to procure sleep, and died.

Post mortem. There were found in the right hemisphere, some of them resting on the dura mater at the base of the brain, the following articles: Two pieces of wire, each over two inches long; a four-penny nail, $2\frac{1}{4}$ inches long, and a needle $1\frac{5}{8}$ inches long. Two of these bodies were found in the middle and two in the anterior lobe. All "were more or less insulated by a gelatinous substance closely adhering to them." There had never been a loss of any of the special senses, or any symptoms of aphasia.

3. *Gangrene of the Limbs in Typhoid Fever.* VALETTE. (*Lyon Médical*, Feb. 6, 1876.)

The author gives an interesting account of a young servant girl, attacked with typhoid fever and pneumonia of one lobe of the right lung, whose condition became so deplorable that large purulent ulcerations occurred over the trochanters and sacrum, extensive portions of the skin mortified over the perineum and vulva, and two-thirds of one foot became black and mummified, with a surrounding line of demarcation. Amputation was performed at the urgent request of the sufferer, to relieve her of her pain, which no form of narcotic dressing could assuage. She survived twenty-three days.

Post mortem. About 25 cicatrices were found in the small intestines, red hepatization of the inferior lobe of the right lung, left ventricular heart clot, and a whitish gray clot at the point of bifurcation of the primitive iliac artery, closely adherent to the vascular walls, its superior half free and closing like a valve the external iliac artery.

The author concludes: 1st. That gangrene of a limb may be classed among the possible complications of typhoid fever. 2d. That the gangrene is not to be attributed to that ill defined and almost unintelligible cause known as malignity, but to determinable organic conditions. 3d. That this complication may be due to arteritis, developed in a manner similar to that of other causes in typhoid fever. (Petry.) But as shown in this case, the gangrene may be determined by an embolism, as described by Bonnet, Van Swieten and Virchow.

4. *Diapedesis of Leucocytes and its present pathological significance.* DR. N. B. SIGER. (*Proceedings Med. Society, County of Kings, June, 1876.*)

After a review of the history of the studies on this subject and a reference to the different experiments for the demonstration of the processes of inflammation and the behavior of leucocytes in this and other pathological conditions, he sums up from the discussions of the subject the present state of the case, as follows:

1st. The greater part of all pus, wherever found in the body, either in vascular or non-vascular tissues, is made up of emigrated white blood cells or their descendants.

2d. Whether the normal cells of the part proliferate in inflammation is at present *sub judice*; the preponderance of evidence is against it.

3d. While emigrating, the leucocytes rapidly proliferate in the tissues.

4th. The emigrated cells are capable of undergoing metamorphosis, and of being transformed into fixed elements, similar to those of the tissue in which they are situated; this is shown in the healing of wounds, where the granulating tissue, which is now known to be made up of emigrated cells and their descendants, is transformed by contact with the normal parts into connective tissue and epithelial cells.

5th. Hence, organization is accomplished by the fixation of the wandering cells and their transformation into cells like those of the neighboring tissues.

6th. When suppuration occurs in mucous or serous surfaces, while most of the pus is composed of leucocytes, the participation of the local epithelium in the process is extremely probable.

7th. The youngest epithelial cells of a tissue are in all probability nothing but organized wandering cells.

8th. Diapedesis is believed to be as prominent a phenomenon in the so-called chronic forms, as in ordinary acute inflammations.

9th. Morbid growths generally, which do not belong to the connective tissue type, are believed by many to be intimately connected with the emigration of cells at an irritated point.

10th. The recurrence of malignant growths after careful extirpation, is believed to be due to the emigration of the young cells of the tumor, which possess an undoubted power of amœboid motion.

5. *Profuse Salivary Flow and Swelling of the Tongue.* W. CARSON, M.D. (*Gin. Lancet and Observer, June, 1876.*)

The patient was a woman of fifty; she had had for some years cardiac disease of some sort; she had pneumonia involving one lung, then as this was recovering she had supervene decided symptoms of meningitis—delirious actions and occasionally drowsy periods—when it was found she had a large quantity of albumen in her urine. Now, one morning when the tongue was dry and small and smooth it suddenly became moist, large and swollen, so that it filled the entire space between the teeth. One-half the tongue was more swollen than the other, and there was an enormous

out-flow of apparently salivary and viscid fluid, without coughing or vomiting. Otherwise there was no change in the patient's condition, and these conditions continued until the death of the patient. How long a time this was, we are not informed. No mercury had been given. Dr. C. refers to the various experiments that have demonstrated the connection of the chorda tympani nerve, the glosso-pharyngeal and the sympathetic with the circulation in the tongue and salivary glands, and then says: "It would seem then, that the principal medium, by which this association of congestion or tumefaction of the tongue and profuse salivary flow is produced, is the chorda tympani nerve, with some added effect from the vaso-dilating fibres of the glosso-pharyngeal." Again he says: "The facts are of great physiological importance, as proving the existence of active vascular dilation, under stimulation of a few nerves; but they have beside, their clinical aspect." "The experimental data afford a strong support to the supposition that the meningeal irritation in our patient comprehended such an area as to involve the larger and smaller nerves of the tongue and submaxillary glands in their intra-cranial sites, that probably the excitation was direct and not reflected."

II. SURGERY.

1. *Application of Caoutchouc in Surgery. (The Medical and Surgical Reporter, May 27, 1876.)*

M. Tarogenne, of Lyons, thus speaks of the cauterization of tissues rendered anæmic by means of Esmarch's elastic bandage:

The cauterization gives better results than when it is practiced on parts in which the circulation has not been suspended. Although it is not apparent at the moment of operation, the hot iron produces its effects more deeply. The surface for cauterization contains no liquid, it does not produce vapor, and the operator can watch the exact points to be attacked better. The integuments do not redden under the influence of the radiating caloric; they preserve their color or become slightly pale. The extent and depth of the cauterization are only shown when the elastic bandage is removed. These effects can be explained by the diminished loss of heat that the iron undergoes when it is not in contact with liquids, which, as a result of the high temperature, are converted into vapors. When it is necessary to act on fungoid tissues in osseous parts deeply situated, this means should be preferred to all others.

2. *Diagnostic Value of the Ileo-Femoral Triangle in cases of Injury of the Hip Joint; more particularly of Impacted Fracture. THOMAS BRYANT, F.R.C.S. (The London Lancet, April, 1876.)*

In a clinical lecture at Guy's Hospital Mr. Bryant cites a number of cases illustrating the value of the ileo-femoral triangle in the diagnosis of

impacted fracture of the neck of the femur. The triangle is so called because it is found between the ilium and the femur. The lines which form it are, he claims, readily made out, and any shortening of the one which he terms the base, can be easily detected. One side of this right angled triangle is represented by a line drawn from the anterior superior spinous process of the ilium to the top of the trochanter major. The second is drawn from the anterior superior spinous process of the ilium directly downwards to the horizontal plane of the recumbent body. The third, which is the base of the triangle, is drawn at right angles to the second, and falls upon the first where it touches the great trochanter. It is to this third line the lecturer's observations refer, and he considers it the test line for fracture or shortening of the neck. Mr. Bryant confidently asserts, upon repeated proofs, that whilst in a healthy subject these ilio-femoral triangles are exactly similar upon the two sides of the body with equal sides and equal angles, with equal confidence assures us that in all cases of injury to the hip in which shortening of the neck of the thigh bone exists, the amount of shortening can readily and accurately be made out on comparing the bases of the triangles of the two sides. That in impacted fracture of the neck of the thigh bone, where on the sound side, the base of the triangle will, in the adult, measure its average normal of two and a half inches, on the affected or injured side, it will measure from half an inch to more than one inch less. The measurements should be taken with the patient in the horizontal position, the pelvis being at a right angle with the spine and the two femora parallel. A tape is then allowed to fall from the anterior superior spinous process of the ilium of one side to the horizontal plane of the body, and a second tape employed to measure the distance between this vertical tape and the upper border of the great trochanter on the same side. These are compared with measurements from corresponding points on the opposite side of the body. Under these circumstances there is no need for rough manipulation of the injured limb, no looking for crepitus, no forced flexion of the thigh, abduction or rotation.

3. *New Methods in Esmarch's Bloodless Operations.* (*The Medical Record*, New York, May 6, 1876.)

Prof. Esmarch published in Langenbeck's Archives some new applications of the elastic bandage for bloodless operations. The application was successfully used in a case of myxosarcoma of the right axilla, which required a removal of the whole arm, with the scapula, and the outer half of the clavicle. He found the plan very efficient in preventing hæmorrhage during an operation for the relief of a man almost the whole of whose penis, with the anterior surface of the scrotum, had been destroyed by epithelial cancer. In reply to the question how long the principal parts of the body may be kept in the bloodless condition, he said that the two lower extremities may be kept so completely for two hours and a quarter without injury.

4. *On Hospital Gangrene. (The Medical and Surgical Reporter, April 15, 1876.)*

In a paper in the *Archiv für Klin. Chirurg.*, by Prof. Von Nussbaum, some details of much practical importance are given with regard to the prevention and curative treatment of this affection. In 1872, the first year of its appearance in the hospital, the gangrenous condition of the wounds in those attacked was always readily and successfully controlled by the local application of lotions containing nitrate of silver, corrosive sublimate, or carbolic acid; but as the distinctive changes became more and more acute, it was found necessary to have recourse to more active means, and to apply caustic paste and the actual cautery. Energetic applications of the latter agent proved the most efficacious, and a perfectly successful result of such treatment was usually indicated by a previous fall of the patient's temperature. During the prevalence of the gangrene many different attempts were made to protect healthy wounds and sores from contagion. The continuous water bath, applications of ice, moist warmth, lotions of carbolic acid, salicylic acid, chlorine water, etc., were tried without good results. Finally Lister's antiseptic plan of dressing was practiced most strictly, so that no open surface was dressed save under the carbolic acid spray, and no instruments or dressings used save after careful disinfection. Hospital gangrene at once ceased, and not a single case has been observed in Prof. Von Nussbaum's ward since the adoption of this plan of dressing, although at the period of its first use eighty per cent. of the surgical patients had been affected. He holds that the secret of Lister's method lay in the pedantic exactness in its mode of application.

5. *The Prevention of Pain after Applications of the Actual Cautey.* R. J. LEVIS, M.D. (*The Medical Times*, Philadelphia, March 18, 1876.)

Dr. Levis makes use of the local anæsthetic action of carbolic acid in his frequent resort to the actual cautery, with the result of the most complete avoidance of consequent suffering. His practice is to apply pure carbolic acid on and for a short distance around each point of application of the cautery before the patient recovers from the influence of the general anæsthetic which has been used. The crystals of carbolic acid are deliquesced by warmth, and the liquid applied with a brush. The part is then covered with a light dressing. Should pain recur after extensive or deep use of the cautery, the application may be renewed. He has not, however, found a second application necessary.

III. OPHTHALMOLOGY.

1. *Ophthalmoscopy in Commotion and Contusion of the Brain.* BOUCHUT. (*Gaz. des Hôp.*, 123, 1875; *Centralbl. f. Chir.*, 12, 1876.)

Bouchut considers the examination of the fundus oculi with the ophthalmoscope as the surest diagnostic means by which to discriminate between

the simple commotion and the graver or traumatic lesions of the brain. If there be commotion only, the fundus shows a normal appearance; but in the case of contusion of the brain, with or without any consecutive inflammation, and also in cases of a serous or hæmorrhagic effusion into the cranial cavity the signs of a disturbance of the circulation in the ophthalmic veins will be found in the optic disc. This appears swollen, uniformly red and sometimes more vascular; its outlines are ill-defined, because the serous infiltration which extends from the papilla to the neighboring portion of the retina, renders the margin of the disc rather indistinct. On these signs of the "engorged papilla" Bouchut could make a sure differential diagnosis in four cases in which the clinical symptoms were very unsatisfactory, and left the diagnosis very doubtful.

2. *Affections of the Eye due to Diabetes Mellitus.* PROF. TH. LEBER, (*Arch. f. Ophth.* xxi., 3).

It is a well known fact that the crystalline lens sometimes becomes opaque (cataractous) in the course of diabetes mellitus; but this affection of the lens is not the only pathological change which occurs in the eye, or which could account for the dimness of sight the diabetic patients so often complain of. By a careful collection of the literary material, and by an analysis of a number of cases which fell under his own observation, Prof. L. is enabled to enumerate the following affections of the eye as occasional complications of diabetes mellitus, to-wit: 1, Hæmorrhage into the retina and vitreous humor; retinitis apoplectica, with or without degeneration of the retina; 2, amblyopia without any visible pathological changes in the fundus oculi; 3, atrophy of the optic nerve; 4, paralysis of the accommodation and sphincter pupillæ; 5, paralysis of ocular muscles. And it is interesting to learn that in several cases the patient's first complaint was about the sight, while he appeared yet to be in good health; the diabetes was detected, so to speak, through the disturbance it has caused in the functions of the eye. Prof. Leber therefore makes it his rule to test the urine of the patient for sugar, carefully and repeatedly, in every case of amblyopia without any satisfactory visible changes in the fundus.

3. *Neuro-retinitis caused by Lightning—Consecutive Blindness.* BRIERE (*du Havre.*) (*Gazette des Hôpît.*)

A young girl, aged 11 years, in excellent health previously, was caught in a violent thunder-storm while returning to her home from school. She did not look at the "zig-zags" of the lightning, as so many do imprudently, but cast her eyes toward the ground. The soil was, however, dry and blanched from the summer's sun of the previous days, and strongly reflected the light from the houses.

The girl had great difficulty in reaching her home in consequence of dizziness, which persisted during the evening. She slept well that night, but, on awaking, was almost blind, being unable to distinguish in the house anything more than the form of persons and the largest objects. In

twenty-four hours the blindness was complete, there was only a feeble luminous sensation, and after waiting a fortnight the child was brought to B. The physiognomy and external aspect indicated the sequence of a profound affection of the ocular globes.

The pupils were widely dilated, and no longer sensible to the action of light and obscurity. The ophthalmoscope showed well-marked neuro-retinitis of both sides — choked papillæ, retinal œdema and venous hyperæmia. She could scarcely decide whether a lighted lamp was held in front of her. Minute doses of calomel, a leech daily behind each ear, synapisms on the nucha, and a dark chamber were ordered. Under this treatment there was moderate improvement for a time, so that the child could almost recognize its mother; but the idea became prevalent in the neighborhood that the patient was under the spell of witchcraft, and all scientific treatment was speedily exchanged for the ridiculous practices of superstition. Some months later B. heard that the little patient was totally blind.

An interesting point in this case was the fact that, though passing through a thunder storm, the child was so far distant from the electric explosions as to *hear no thunder*. There was consequently no injury by shock, but solely by intense reflected light.

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COMMUNUTED FRACTURE OF THE SKULL, FOLLOWED BY METASTATIC PNEUMONIA AND GANGRENE.

By J. W. BURNS, M.D., LAKE CRYSTAL, MINN.

Thomas M., a tramp, aged about sixty years, was struck on the evening of April 26, 1876, with a heavy club on the left temporal region, and remained out doors during the entire night, which was quite cold. The following morning, when first seen, he presented the following symptoms: The scalp over the left temporal fossa was badly contused and ecchymosed, and a great degree of swelling had taken place. The swelling and ecchymosis extended to both orbital regions, and the eyes were both closed, so that I found it impossible to open them. The countenance was of a deadly pallor; respirations feeble and noiseless; pulse weak, intermittent, and somewhat frequent; pupils contracted, but responded to light; deglutition performed with difficulty; mind in a state of abeyance, but confused; the patient answering questions with great difficulty, and only in monosyllables; bladder and bowels acted normally, paralysis was not manifest, although the

voluntary muscles were much weakened. The case was diagnosed as concussion of the brain, with fracture and depression of the skull.

The patient received the usual treatment adopted in concussion of the brain, but nothing like full reaction occurred; still the case gradually improved up to the end of the first week.

May 4th. Discovered a slight paralysis of the right side, and about the same time the pulse became fuller and slower, the pupils more dilated, the breathing labored and slower; deglutition performed with greater difficulty, and the urine and feces were passed involuntarily.

These symptoms gradually increased in severity until the 7th and 8th, when severe convulsions occurred. On the appearance of these the patient was given active mercurial cathartics, and put upon 5 grs. of iodide of potassium and 30 drops of fl. ex. ergot, four times a day. The case now began to improve, and in the course of a week the paralysis had entirely disappeared and the bodily functions were performed naturally; the mind grew stronger, but the pulse continued slow and full; the respirations slow but performed easily; the pupils were normal. No inflammatory action has been manifest in the case.

May 24th. The patient is able to walk a mile or two every day, has a good appetite, and is improving mentally and physically; the pulse and respirations are preternaturally slow, the mind weak and somewhat confused by spells.

At no time during the treatment had the patient complained of severe pain in the head; he occasionally said that it was "sore." At the seat of injury a fracture could be distinctly traced, below the temporal ridge, extending backwards and upwards through the parietal bone towards the sagittal suture. The depression in the temporal fossa was well marked, but as the patient presented no symptoms that warranted surgical interference, he was discharged and left the village about June 1st. I cannot obtain a history of the case from the 1st to the 16th inst.

On the latter date he was found twenty miles from here and taken to Mankato, where he was attended by the county phy-

sician, who found him in an insensible condition, and dying from some disease of the lungs. Death occurred on the 20th inst.

From the attending physician I learn that he remained in a semi-comatose condition up to the time of death; that the pulse and respirations were greatly accelerated; that urine and feces were passed involuntarily, and that he expectorated large quantities of a brownish fetid material.

A *post mortem* examination of the head, (at which I was not present,) was made on the day of death, and revealed a comminuted fracture in the left temporal fossa, involving the great wing of the sphenoid, a portion of the frontal, the squamous portion of the temporal and the parietal below the temporal ridge. The fracture covered a space $1\frac{1}{2}$ by $2\frac{1}{4}$ inches. Besides this there was a fracture five inches in length commencing in the frontal bone below the temporal ridge, and extending backwards and upwards to the sagittal suture. The greatest depression was $\frac{5}{16}$ of an inch, and occurred in the parietal bone below the temporal ridge. The under surface of the fracture was comparatively smooth, except at one or two points which had evidently punctured the membranes and caused an effusion of serum.

A slight sanguineous effusion had taken place between the dura mater and skull, and also in the substance of the brain, which was slightly softened in the immediate vicinity of the greatest depression. No effusion had occurred in the ventricles, and the remaining portion of the brain appeared normal. Examination of the thorax revealed three bluish-green moist sloughs in the parenchyma of the upper lobe of the right lung. They varied in size from a hickory-nut to a hen's egg, and were not abruptly limited, but merged into the hepatized parenchyma. They contained a greenish-black stinking substance, saturated with blackish-gray ichor.

Mortification had reached the pleura at one point, and its surface was bathed with this same greenish-black substance. Extensive adhesions were present in the upper part of the pleura. A bronchus had opened into one of the sloughs, hence the copious-brownish expectoration previous to death.

The remaining slough was circumscribed. At one point in the middle lobe, a dark, yellowish deposit had occurred on the pleura, and its surfaces were somewhat adherent, and beneath was a rounded nodular prominence. A similar prominence was found in the left lung, just beneath the pleura, but with less deposits. The remaining portion of the right lung was bathed in a reddish-gray matter, and it could be expressed in large quantities from its cut surface, which was of a grayish-yellow color. The tissues were tender and easily torn; a slight granular appearance was visible. The left lung was in a hyperemic condition. This, with the condition described above, were the only changes noticed. The heart and abdominal viscera were all in a normal condition.

A point of considerable interest in the case was the amount of depression without symptoms of compression during the first week. I attribute the paralysis and other symptoms of compression that occurred a week or ten days after the injury to effusion of serum from puncture of the membranes, and the sanguineous effusion in the substance of the brain, and not to direct compression by the bone.

Another point of interest is the lung difficulty. Was the pneumonia metastatic, or did it originate from exposure and the debilitated condition of the patient? The evidence I think is in favor of the former. Abscesses and gangrene are very rare as a sequel of pneumonia, even in old and debilitated cases, while hæmorrhagic infarction following injuries of the skull where the diploe has been penetrated is of a frequent occurrence, and is due to the gaping of the walls of the veins, which being adherent to the tables of the skull, are prevented from closing, so that entrance of coagula into them is facilitated.

Hæmorrhagic infarction had certainly taken place at two points, as shown by the dark yellowish deposit on the surface of the pleura, adhesion of its surfaces and the rounded, nodular prominence immediately beneath. That the gangrenous abscesses or sloughs were at first simple infarctions I have no doubt, but owing to extravasation and compression of the capillaries, secondary coagula formed in the bronchial arteries

and nutritive vessels, thus withholding nutritive material from the infarction and causing its death.

The principle upon which metastatic infarctions occur caused by emboli from sanious or suppurating surfaces is too well understood by the profession to call for any remarks.

That such infarction occurred in this case, and that abscess, gangrene and pneumonia followed is, I think, well established by the history and *post mortem*. The patient evidently died from metastatic disease of the lungs, induced or caused by the injury of the skull and brain.

I will not open the question whether an operation was advisable or not during the time I treated the case, but leave it for each surgeon to decide for himself.

ON THE TREATMENT OF EMPYEMA BY ANTISEPTIC INJECTIONS AND DRAINAGE TUBES.

By W. H. VITNUM, M.D., BARABOO, WIS.

Since the introduction of antiseptic surgery by Lister, the treatment of abscesses and suppurating sores of all descriptions has been far more satisfactory than formerly. The profession, with a few exceptions, at once saw and appreciated the advantages to be derived from a system of treatment which should exclude from the cavity of an abscess, or the surface of an ulcer, all those vegetable and animal sources of infection which are supposed to exercise so unfavorable an influence upon the healing process.

In a short time abscesses in nearly all parts of the body were treated by injections of carbolic acid. The pleural cavity was long an exception to this rule, and collections of pus in this situation were merely evacuated, or at most treated with slightly stimulant injections. Indeed, so recently has the antiseptic method of treatment been adopted, that most of our standard text books are utterly silent in regard to it. So recent a writer as Ashhurst says: "Boinet has recommended the injection of iodine into an empyemic cavity, and in one case in which I

saw this method employed, it certainly produced no undue irritation. I believe, however, that the advantages which were anticipated from this mode of treatment have been in most instances not fully realized." There is, however, neither here nor elsewhere in his book any mention in this connection of antiseptics strictly so called. Gross and Holmes, both in their old and new works, Bryant and Gant, of England, are all silent in regard to this mode of treatment.

Prof. F. H. Hamilton says, "abscesses resulting from the presence of foreign bodies in the cavity of the chest should occasionally be thoroughly syringed out with tepid water, or with such disinfectants as carbolic acid, chloride of sodium, or bromine." Why these most beneficial injections should be limited to those cases having a traumatic origin would seem incomprehensible.

In the Medical and Surgical History of the War of the Rebellion, page 581, I find the following commentary on the foregoing extract: "Surgeon F. H. Hamilton advised, in the cases complicated by the presence of foreign bodies in the cavity of the chest, thorough syringing 'with such disinfectants as carbolic acid, chloride of sodium, or bromine,' but no evidence of their efficacy is produced."

Of course no therapeutic measure can be rightly judged when it is applied only to those cases over whose complications it can, in the very nature of things, have no control.

In order to successfully disinfect the pleural cavity, drainage tubes of one form or another will have to be used. Prof. Gross throws the weight of his great learning and experience against the employment of this measure. He says: "The use of drainage tubes has lately been recommended under such circumstances, but the treatment, it seems to me, should not be encouraged, as it is both harsh and dangerous." These are, however, the sentiments of one of the opposers of antiseptic surgery in general, and as such need have no great weight with us; for if the beneficial effects of antiseptics are denied, there is no indication for either injections or drainage tubes.

Prof. E. Andrews, of Chicago, was probably the first among

the surgeons of the west to propose injections of carbolic acid into an empyemic cavity. His first case occurred in June, 1872, and was reported in the *Chicago Medical Examiner* for December of that year, under the title, "Antiseptic Injections and Drainage Tubes in Empyema." Dr. Andrews says: "I conceived the idea because patients fared so badly by old methods, and because I found Lister's plan so successful in arresting suppuration in other parts of the body that I thought it might do equally well in the pleura."

Dr. Fraentzel, of Munich, first saw and used this method of treatment "in the beginning of the year 1873." I saw the operation performed at the Charity Hospital in New Orleans by the late Prof. Hawthorn, during the winter of 1874-5. I am told that it is now the regular treatment for empyema in New York city. I presume this is the case with the principal cities of the United States; of New Orleans and Chicago I can speak with certainty.

After this brief sketch of the history of antiseptic injections into the pleural cavity, let us glance for a moment at some of the details of the treatment. All of the authorities agree that the external opening should be a large one for the free exit of the pus. Fraentzel, in his article on Pleuritis, in the 4th volume of Ziemssen's cyclopedia gives an elaborate account of what he terms the "radical operation" for empyema. His plan is to have a silver canula large enough to admit two Nélaton catheters at once, kept constantly in the wound. The cleansing and disinfecting the cavity is carried on by a force pump or syringe attached to one of these catheters and a suction pump to the other. The catheters are then passed together through the cannula and pressed deep down into the cavity of the chest, and the work of injection and withdrawal of the fluid accomplished by these means. The cannula is to be made of silver and has a collar which must accurately fit the outside of the patient's chest. Of course we living in the country, or even in large towns, can hardly have at our command the means necessary to accomplish this. But let us see whether a more simple contrivance will not answer the purpose. Prof. Andrews uses a simple rubber tube opening

through a button of gutta percha. Prof. Hawthorn used a common flexible catheter for his injections, and maintained it *in situ* by means of adhesive strips. In a case which occurred in the practice of Dr. M. M. Davis and myself, we used a common flexible catheter brought through a circular disk of leather and sewed into the latter.

In regard to the fluid to be injected, there is some difference of opinion. Most surgeons think that a weak solution of carbolic acid, say two or three per cent., should be used at first, to be increased afterward if necessary. Dr. Fraentzel immediately after the operation uses a solution of common salt, and afterward some disinfectant. I quote from page 720, volume 4, of Ziemssen's cyclopedia: "After a few days, even if there is no fever, and the contents of the pleural sac are not fetid, we should replace the solution of common salt with compound tincture of iodine diluted with from twenty to fifty times its bulk of water, or we may use a solution of permanganate of potash, (one grain to the ounce,) or a solution of carbolic acid, (two grains to the ounce.)"

Prof. Hawthorn used a mixture of pure carbolic acid and water, (one part to six.) I saw him do this twice in patients enfeebled by the disease, and yet no injurious effects followed. I quote from a letter from this gentleman dated Dec. 6th, 1875: "I treated a child in private practice last spring with capital results. The child was three years old; had empyema; was aspirated; the fluid reaccumulated; a free incision was made, the chest washed out, a weak solution injected at first, but this failing, in the end a mixture of pure carbolic acid and water, (one part in six,) was used with effect of arresting suppuration. The mixture took the cuticle off the chest wall wherever it touched, but caused no ill symptoms within. The lung finally expanded and the child is now perfectly well." In the case already alluded to, occurring in the practice of Dr. Davis and myself, a ten per cent. mixture was used. The only unpleasant result was considerable dizziness, which, however, soon passed off, leaving no ill effects.

There is a difference of opinion as to whether any of the antiseptic fluid should be left in the cavity of the chest.

Fraentzel says the cavity should be completely emptied at each dressing. Prof. Hawthorn left some of the fluid from dressing to dressing. The latter plan was followed by Dr. Davis and myself. The pleura is probably so thickened by inflammation that no danger of absorption exists, and for a time, at least, the continuous action of the antiseptic can result in nothing but good.

It may not be amiss here to give a short account of the case which occurred to Dr. Davis and the writer, and which will show the general plan of treatment. Miss L. B., aged 22, on the 29th of Dec., 1869, had a severe attack of pleuritis which culminated in a purulent effusion. In April, 1870, the chest was punctured in the tenth intercostal space and injected with tincture of iodine, with no result except the establishment of a fistula. At the time when the patient came into our care she could not move without being thrown into a violent fit of coughing. The daily discharge of pus was from six to twelve ounces. She was much emaciated, and notwithstanding her excellent constitution, which had so long resisted this fearful drainage, was slowly sinking. The menses had been absent since the first attack of pleuritis. Auscultation gave no sound over the left side of the chest, with the exception of a little space near the root of the lung, where bronchial breathing could be heard. The lung was evidently collapsed, and judging from the long continuance of effusion, most likely bound down by adhesions. The patient expectorated pus freely, showing a fistulous opening through the lung, which converted the case really into one of pyopneumothorax. I may remark in passing that this fistula closed in a few weeks from the date of operation. The patient had had a variety of treatment from different physicians, but notwithstanding this, had been unable to walk for three years and a half. We found a lateral curvature of the spine, resulting from her habitually sitting in a constrained position. There was also extreme deformity of the fingers and toes, the former being clubbed to a remarkable extent. On the 19th of Oct., 1875, we made a free incision into the pleural cavity in the site of the fistula and drew off twenty-four ounces of pus. We then introduced

a drainage tube and washed out the cavity with tepid water. A mixture of carbolic acid and water, (one part in ten,) was then injected. The reduction in the amount of discharge was immediate and marked, hardly an ounce and a half of pus making its appearance during the twenty-four hours following the operation. This washing and injecting was repeated daily (varying the strength of the antiseptic mixture from time to time,) until Dec. 12th, when salicylic acid was substituted for the carbolic wash. During the whole time tonics and stimulants were freely administered. About Nov. 25th an attack of malarial fever supervened, which greatly augmented the amount of pus secreted. The fever, however, readily yielding to the usual remedies, the discharge at once subsided to its former quantity, and the patient has since then continued constantly to improve. On the 16th of November the menses appeared for the first time in nearly six years and have remained regular ever since. At the present time the discharge is virtually stopped. The cavity has a capacity of only four ounces and is steadily diminishing in size. Roughened and prolonged breathing can be heard over the upper part of the chest in front and over nearly the whole thoracic surface posteriorly, showing that the lung has, at least in part, re-expanded. The patient is strong, has a good appetite, and is able to take long walks in the open air.

In conclusion it may be well to give the results of such cases treated by antiseptic injections as I have been able to collect.

Prof. Andrews says, in a private letter: "I have tried it," (meaning this mode of treatment,) "in about six cases, and without a single failure, or a single bad symptom." Two cases that I saw treated at the Charity Hospital, in New Orleans, I understand to have recovered completely. These, with the case already quoted from Prof. Hawthorn's letter, make three cases for that gentleman. A case was related to me by Dr. C. Gapen which he treated while house surgeon of Cook County Hospital, in Chicago. The result was a perfect cure. Adding to these the case treated by Dr. Davis and the writer, and we have eleven cases with as many recoveries. Of

course this remarkable success will not always follow the treatment, as will be shown by a statement of ten cases treated by Dr. Fraentzel. In ten cases he had five complete recoveries. The deaths in several instances, however, resulted from other causes than such as could be attributed in any way to the operation or after treatment. I shall take the liberty to quote at length his statement of these cases.

"Since the first case that I saw treated in this way in 1873. I have had the radical operation in eleven cases with purulent effusions, following the same principles both with regard to the operation and the after treatment. Complete recovery ensued in five. A sixth, in whose case the cannula had been removed somewhat too soon, and on account of whose foolish resistance, the strict after treatment had been interfered with, was dismissed with an incompletely healed thoracic fistula. He was afterwards for five months entirely without medical supervision, and was at last returned to the *Charité* with amyloid degeneration of the liver, spleen, and kidneys, and died there a few weeks ago. Four of those who had been operated upon died; one of ichorization of the pleural cavity with severe tubercular pleuritis and circumscribed caseous deposits in both lungs; another, who, at the time of the operation, was suffering from amyloid degeneration of the kidneys, and had a thoracic fistula, and for whom the radical operation with resection of a piece of rib, had been performed, died of secondary peritonitis; a third, who had been attacked with purulent pleuritis, as he was recovering from a severe form of typhoid, succumbed to an attack of pneumonia in the lower lobe of the uncompressed lung, which had probably arisen in consequence of catching cold during the operation; and finally the fourth patient, who in the course of a caseous pneumonia had become the victim of pyopneumothorax, and who had not been operated upon till some months later, when the purulent effusion began to increase considerably, sank from dysentery which set in the day after the operation, and which was at that time endemic in the hospital. An eleventh case was operated upon not quite a fortnight ago, and gives hope of recovery. This was a case in which an extensive

purulent effusion supervened as an attack of pleuro-pneumonia, and after twice puncturing, re-accumulated in a very short time."

Dr. Fraentzel insists strenuously on his particular after-treatment, antiseptic injections and suitable drainage. These cases, ten of Dr. F.'s, and eleven before recited, give us twenty-one cases, with four deaths. At least two of these deaths cannot be ascribed to the operation, or even to the pre-existing empyema.

This record will speak for itself, especially when it is taken into consideration that the cases of the German professor occurred in a hospital where probably the opportunities for securing a good supply of fresh air, etc., were not nearly so great as they usually are in private practice.

The extreme simplicity of the operation and the utter harmlessness of judiciously employed anteseptic injections, will be strong reasons for the general adoption of this method of treating empyema.

SALICYLIC ACID.

By DANIEL T. NELSON, M.D.,

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The following cases, except the last, were treated in the Mercy Hospital, and the report is made from the carefully kept records of Dr. Fred. C. Schaefer, the interne in the medical wards.

CASE I. *Intermittent Fever*. H. E., a locksmith, male, German, single; admitted to hospital May 4, 1876, 4 P. M., discharged May 18, 1876. Was taken sick in Memphis, Tenn., about two weeks ago with chills and fever. Paroxysms recur every second day; last at 5 P. M. yesterday. Temperature 99°, pulse 80, skin dry, urine scanty and dark colored, lips covered with fever sores, (herpes,) tongue heavily coated, yellowish-brown color, appetite poor, thirsty, some cough. Had a dose of magnesia sulphate on entering. Bowels moved freely at 10

P. M. Acid salicylic ʒj. in gr. x. doses ordered to be taken daily between paroxysms.

May 5th, 8 A. M. Pulse 72, temperature 99° , resp. 22. Has headache in frontal region, coughs considerably, bowels moved this morning, no appetite, sweat freely last night. Had a chill at 5 P. M., lasting $1\frac{1}{2}$ hours, followed by high fever.

May 6th, 8 A. M. Had a dark-colored stool this morning, tongue still coated, head aches, pulse 92, skin moist, temperature $98\frac{1}{2}^{\circ}$, has ringing in the ears. Ordered acid salicylic gr. xv. four times a day. Noon—pulse 84, temperature $98\frac{1}{2}^{\circ}$, appetite returning, stools yellowish.

May 7th, 8 A. M. Pulse 84, full and moderately firm, temperature $98\frac{1}{2}^{\circ}$. 4:30 P. M.—having a chill; temperature during chill, 101° , in axilla. Give acid salicylic gr. x. every hour till bedtime after “fever” returns.

May 8th, A. M. Much better, pulse 84, temperature $98\frac{1}{2}^{\circ}$, appetite good, feels a little “sore” in stomach. Ordered acid salicylic gr. x. every two hours to-day.

May 9th. Is walking about; “feels good;” acid salicylic gr. x. three times to-day.

May 10th. Still improving; pulse 4 P. M., sitting, 65.

May 11th. Convalescent; acid salicylic gr. x. three times to-day.

May 12th. Took acid twice to-day.

May 13th. Had a chill 10:30 A. M., lasting half an hour. Has pain in knees and elbow joints. Ordered acid salicylic gr. x. every three hours.

May 14th. Better.

May 15th. Had a chill 10 A. M., lasting nearly half an hour. The supply of salicylic being exhausted, quiniæ sulph. gr. v. was given every four hours.

May 16th. Resumed salicylic acid, half drachm daily. Pulse 96; appetite fair; rested better last night; stools yellowish.

May 17th. Slept poorly last night; dizzy all the time; appetite good; walks about the ward; pulse 72; temperature $98\frac{1}{2}^{\circ}$; takes acid salicylic gr. x. three times to-day.

May 18th. Convalescent; discharged. Visited hospital May

20th; no return of chills; has regained strength. Took during illness $\overline{\text{J}}$ ix. of salicylic acid, and gr. xv. of quinine.

CASE II. *Intermittent Fever.* T. M., admitted May 23, 1876, 6 p. m., discharged May 29, 1876. Male; age 35; boiler maker. Has been unwell some nine weeks; had an attack of "chills and fever," lasting some five weeks at beginning of illness. Chill came every two to four days; got some better. Chills returned ten days ago. Has had a chill every evening for a week; chill lasts from half to two hours; last chill yesterday, 8 p. m. Temperature $99\frac{1}{2}^{\circ}$, pulse 98, respiration 20, urine abundant but dark in color; tongue dry in center, brown coat on either side; appetite poor; thirst great. *Treatment.*—6 p. m., acid salicylic gr. x. every hour till bedtime.

May 24th, 8:45 a. m. Pulse 84, moderately full; respiration 20, temperature $98\frac{1}{2}^{\circ}$. Took 30 grs. last night before bedtime. Had no chill; slept well; is much refreshed. Bowels moved before breakfast; did not observe color of stool; appetite improving.

May 25th, 8:30 a. m. Pulse 84, respiration 20, temperature $98\frac{1}{2}^{\circ}$. Had no chill last night. Took five ten grain doses during the day, yesterday; last dose 5 p. m. Tongue clearing; appetite improving; skin natural; urine normal. Continue acid, five doses of ten grains.

May 26th, 9 a. m. Pulse 88, respiration 22, temperature $98\frac{1}{2}^{\circ}$. Tongue a little coated; skin natural; no chill; took 50 grains yesterday. Continue acid, ten grains three times a day.

May 27th. Convalescent. Took four drachms acid.

CASE III. *Intermittent Fever, with Diphtheria.* A. W., admitted May 2, 1876, age 20; female. Taken sick with sore throat a week ago; slight cough; has a chill twice a day. Temperature 104° , pulse 120; skin dry and hot; tongue brown coat; tonsils much inflamed; opens the mouth with great difficulty. Had quiniæ sulph. gr. iv. every four hours, and for an external application a solution of plumb. acet.

May 3d, a. m. Neck still much swollen, and throat very sore, but opens mouth more easily. Took hydrarg. chld. mit. gr. iij. with bismuth. subnit. gr. ij. last night. Bowels moved freely; stools dark brown; had a chill this morning, 5:30 a. m.

P. M. Ordered acid salicylic gr. x. every hour, to use $\mathfrak{z}$ j. daily.

May 4th, A. M. Is much improved; temperature 102° ; pulse 96; had a chill last night at 10 P. M. Continue acid. P. M. Temperature 101° , pulse 92; throat much better.

May 5th, A. M. Temperature 101° , pulse 96; throat still sore; appetite improving; had a chill at 10 P. M. last night. Continue acid $\mathfrak{z}$ j. daily.

May 6th, 8 A. M. Slept well last night; had prolonged feeling of coldness this morning, lasting two hours; skin now warm and moist; temperature 99° ; pulse 84; respiration 22; soreness in throat diminishing; has some ringing in ears. To take $\mathfrak{z}$ ss. acid to-day. 3 P. M. Had a "chill" for half an hour; has no ringing in ears; temperature $99\frac{1}{2}^{\circ}$; knees cold.

May 7th, 8 A. M. Improving; walks about the ward.

May 8th. Convalescent; left. Has taken $\mathfrak{z}$ iv. salicylic acid during illness.

May 14th. Returned; throat much swollen again; very painful; had on entering a gargle of potass. chlorat, tr. belladonæ and acid. tannic., which gave some relief.

May 15th, 8 A. M. Considerable inflammation in fauces, with small diphtheritic patches on tonsils; has great pain in right ear. Prescribed cinchonidæ sulph. gr. v. three times a day; continue gargle.

May 16th, 8 A. M. Awake all night with pain in ear; continue local treatment; apply solution of morphia to ear; acid. salicylic. $\mathfrak{z}$ j. daily.

May 17th, 8 A. M. Earache gone; throat better. 3 P. M. Is feeling much better; can swallow more easily; diphtheritic patches gone.

May 18th, A. M. Very much better; slept better; take gr. x. acid every three hours.

May 19th, 5 P. M. Feeling very cold, though a very warm day; has a shawl closely wrapped about neck and shoulders. 11:30 P. M. In a cold, collapsed state; body covered with a cold perspiration; knees and elbows *very* cold. Ordered ammoniæ carb. internally for stimulant.

May 20th, 11 A. M. Extremities feel very cold to patient;

temperature, popliteal $96\frac{2}{3}^{\circ}$, axillary $99\frac{3}{10}^{\circ}$; patellæ cold; hands cool; pulse 84, good volume.

May 21st, A. M. Sitting up; takes two doses, ten grains each, of acid.

May 22d. Convalescent; has taken $\overline{\text{ijss}}$. acid since relapse.

CASE IV. *Spanæmia, with Neuralgia.* B. G., admitted April 7th, discharged May 8th, 1876; aged 20; female; house maid. Has had backache and headache for about a week; bowels constipated; menses absent five months; has had menses but three times a year for four years; leucorrhœa at times, not now. No dysmenorrhœa; nervous; temperature 100° ; pulse 84, full; respiration 18; tongue considerably coated; stomach irritable; has a mitral murmur, probably not organic. *Treatment.*—At first a mixture containing carbolic acid., tr. gelsem, and tr. opii. camph. was used for the irritable stomach, and pills of cinchonidia gr. ij. each, with tr. iron and nitro-mur. acid in mixture for the spanæmia. Then when severe neuralgic pains came on, chiefly in the supra-orbital and otic branches of the fifth, recurring periodically though irregularly, cinchonidia in five grain doses was given in the interval of the pain (15 grs. in 24 hours). Temporary improvement. The neuralgia returning, and severe, quinine, gr. 15 in 24 hours in the intervals of the pain was tried. Better results, but still the pain returns, and at times as severe as ever.

May 4th, A. M. Pains very severe; ordered acid. salicylic. gr. x. every two hours.

May 5th, A. M. Pains return only occasionally, and not as severe; pulse 84, temperature $98\frac{1}{2}^{\circ}$.

May 6th, A. M. Pulse 78, respiration 22, temperature $98\frac{1}{2}^{\circ}$, bowels natural, appetite good. Acid, gr. x. every three hours.

May 7th. Pain returned at 4 P. M. Take acid gr. x. every two hours.

May 8th. Is much better. Left the hospital with a prescription for salicylic acid, and the injunction to continue it. Took $3\frac{1}{2}$ drachms of the acid. The patient left the hospital sooner than we could have wished, but the acid certainly con-

trolled the pains better than any of the remedies used, so long as she was under observation.

CASE V. *Acute Rheumatism with Syphilis.*

Admitted April 12th, discharged May 8th, 1876. F. L. A., age 29; female. During past four weeks has had pain in knees, ankles, shoulders, elbow and wrist, gradually increasing in intensity. Knees and ankles somewhat swollen. Sweats considerably towards night. Had a mixture containing potass. citrat. gr. xl. every three hours until April 14th, p. m., when there being little change for the better, acid. salicylic. gr. vijss. every four hours was ordered.

April 15th, a. m. Slept well last night and is feeling much better this morning; has no pain; joints sore on moving; temperature $98\frac{1}{2}^{\circ}$, pulse 76, urine alkaline.

April 16th, a. m. Joints more painful; tongue a little coated; appetite poor. Noticed nodes on each tibia, which are quite red and tender. All the joints were painful last night. Has sore throat.

April 17th, a. m. Slept poorly from pain. Continue acid.

April 18th, a. m. Slept well last night; pains slight; joints stiff.

April 19th, a. m. Pains gone entirely; slept well last night.

April 21st. Sitting up; pain returned in knee last night; not severe. Ordered potass. iod. gr. xxx. daily. Continue salicylic. acid.

April 27th. Acid stopped; iodide continued; pain and stiffness all gone; took 3 vj. acid in all.

CASE VI. *Acute Rheumatism.*

M. M., age 25; female. April 22, 1876, took cold by sitting near an open window while perspiring freely. Second day afterward took to bed with severe pains in back and feet; feet swollen; was in bed a week; treated by a physician, but treatment not known. Sat up four days; pains returned and took to bed again.

May 9th. Ordered acid. salicylic. gr. x. every hour till pain relieved. Next day pain all gone; joints sore and stiff. Powders did not disturb the stomach; took them in paper. Continued the powders at longer intervals during the week.

May 21st. Pains returned again, but not so severe. Took powder again every hour till relieved.

May 28th. Has continued the powders at increasing intervals. Appetite has increased constantly while taking the powders. The swelling, soreness, and stiffness gone from all the joints. Has taken in all one ounce of the acid.

REMARKS.—The first four cases seem to show that salicylic acid is efficient in controlling periodic fever and neuralgia as well as quinine; indeed, in the one case of neuralgia reported better. The dose required seems to be about four or five times greater than quinine; but the cost of salicylic acid is now less than one-sixth that of quinine, 35 cents and \$2.35 per ounce. So the cost of a drachm of salicylic acid would be equal to nine grains of quinine, which would certainly be a small allowance per day for a severe case of intermittent fever or neuralgia, while a drachm of salicylic acid would in most cases be an ample allowance. As with quinine its taste is very disagreeable. But it may be administered in wafers or paper and be tasteless. The dry powder is usually quite readily taken also in any thick syrup. It was given in the hospital, in above cases, in solution as follows:

Acid. Salicylic. ʒj.
Alcoholis ʒ viij.

Dissolve and then add—

Ext. Malt)
Aqueæ { aa ʒ viij.
Syr. Glycyrrhizæ ʒ iij.

Half an ounce of this mixture contains ten grains of the acid—the usual dose. If borax in equal quantities with the acid or less, be added to the mixture, the alcohol may be diminished, as the borax renders the acid more readily soluble, though it makes the mixture more liable to disturb the bowels. The acetates of potassa, soda and ammonia also render the acid much more soluble, so that the alcohol may be omitted in the menstruum. The pure acid is more readily soluble than the impure.

Case III. illustrates very well the effects of a full dose—yes, over dose—of the drug.

By the kindness of Drs. Schaefer, Palmer and Sienank, at the Mercy Hospital, I am able to give the following results of experiments made upon themselves to determine the effects of salicylic acid when taken in health. The real effect upon the pulse, respiration, and temperature, is doubtless the most accurately shown in Experiment I., as the Doctor lay quiet during the first three hours of the experiment, while the others were moving about as their duties called them. Yet it will be seen that the results noted substantially agree.

EXPERIMENT I.

Amount taken, gr. xv. in solution at one dose. Weight of man 140 lbs. Normal pulse, (position reclining,) 72. Axillary temperature 98°. Respirations 16. Remained in reclining position three hours. After taking the drug the following observations were made:

Time.	Pulse.	Resp.	Temp.	
5 Min.	72 mod. size.	16	98°	
10	82 a little bounding.	18	98 1-10°	
15	72 full volume.	13	98 1/4°	
20	72 " "	12	98 6-10°	Surface temperature depressed, knees, ankles and elbows cool to the touch.
30	72 " "	11	98 4-5°	Surface temperature depressed, knees, ankles and elbows cool to the touch.
35	72 " "	10	99°	Limbs cold from knees to middle third of thigh; and from elbows to middle of humerus. Considerable diaphoresis about the joints mentioned.
40	72 " "	9	99°	Limbs cold from knees to middle third of thigh; and from elbows to middle of humerus. Considerable diaphoresis about the joints mentioned.
45	74 " "	10	98 1/2°	Skin perspiring all over. Joints quite cold to the senses. Head feels "light." Brow very moist.
55	74 " "	13	97 1/2°	Knees, elbows and ankles very cold and clammy. Desire to urinate quite marked.* Entire surface of body moist and cool.

* The bladder was evacuated just before the acid was taken.

Time.	Pulse.	Resp.	Temp.	
1 Hour.	74 full volume.	13	98½°	Whole surface of body quite moist but comfortably warm; face a little red; passed half pint of urine.*
1½	74 " "	14	98½°	Skin <i>wet</i> all over. Knees and elbows still cold, while surface temperature is higher than normal. Head feels "full." Feel buoyant. Face flushed.
1¾	80 very full.	16	99°	Feel a glow of heat all over body except the joints, (knees and elbows.) Skin still moist; face very red and warm.
2	80 " "	18	98 9-10°	Feel a glow of heat all over body except the joints, (knees and elbows.) Skin still moist; face very red and warm.
2½	72 moderate vol'm.	16	98°	Surface temperature, little above normal. Still somewhat moist. Face continues flushed. Passed urine, half pint, light colored.*
3	72 " "	16	98°	Surface temperature again natural. Skin only slightly moist.
4	72	16	98°	Only signs present indicating the action of the drug, <i>cold joints</i> .
6	72	16	98°	Only signs present indicating the action of the drug, <i>cold joints</i> .

EXPERIMENT II.

Amount taken, gr. x., one dose in pills. Weight of man 150 lbs. Normal pulse 96, sitting. Axillary temperature 98 3.5°. Respiration 18. Urine tested with Tinct. Ferri Chld. After taking the drug the following observations were made. (Pulse and respiration taken in sitting posture.)

Time.	Pulse.	Resp.	Temp.	Urine Test.
5 M. aft'r.	100	18	98 3.5°	No trace present.
15	104 full.	24	98¼°	Precipitate slight; violet tint.
30	96 " "	24	98 1.5°	Precipitate slight; violet tint.
45	96 " "	24	98°	Precipitate dark wine color.
60	96 " "	24	98 2.5°	Skin dry and cool. Purple color.
2½ Hours.	96 " "	24	98 3.5°	Skin moist and cool; knees and elbows cold. Purple color.
8	96 mod.	20	98 3.5°	Skin normal. Purple color.
50	96	18	98 3.5°	Wine color.

* The bladder was evacuated just before the acid was taken.

EXPERIMENT III.

Amount taken, gr. xv., in solution. Weight of man 140 lbs. Normal pulse, sitting, 76. Axillary temperature 97.25°. Respiration 16.

Time.	Pulse.	Resp.	Temp.	Urine Test.	
Minutes.					
4	80	18	97.25°	Light violet tint.	
10	80	19		" " "	
20	72	19			Skin a little moist all over.
30	72	14	96.25°	Wine color.	Skin very moist; knees and elbows quite cool.
60	72	18	97.25		Surface temp. below normal; knees and elbows cold and clammy; entire surface covered with perspiration.
90	72	21	98°	Purplish.	Face flushed and warm; head feels a little light.
Hours.					
2 3/4	72	16	96 3/4°	Purple.	Face flushed and warm; head feels a little light.
6	72	16		"	Surface of body normal.
8	76	13	97 1/4°	"	" " "
48	76	16	97.25°	"	" " "
72	76	16	97.25°	Urine gives a very faint violet tint.	

EXPERIMENT IV.

Amount taken, grs. xx., in solution. Weight of man 145 lbs. Normal pulse, sitting, 65. Axillary temperature 98.35°. Respiration 16.

Time.	Pulse.	Resp.	Temp.	Urine Test.	
Minutes.					
5	60 strong.	18	98.35°	No trace.	
10	66	"	20 98.35°	Slight violet tint.	
30	57	"	24 98 1/4°		Knees, ankles and elbows cool to touch and to the sense. Skin moist all over. Head feels light.
Hours.					
3	60	22	98.15°		A sensation of heat all over body; face flushed; feels exhilarated; head feels full.
8	60	20	98 1/4°	Purple color.	
12	60	18	98 1/4°		Joints still cold.
Days.					
2 1/2	60	16	98 1/4°	Wine color.	No phenomenon present.

It will be noticed as the result of these experiments, that the acid is rapidly absorbed, and in from four to ten minutes begins to be eliminated by the kidneys. The amount eliminated gradually increases during the first one or two hours, when the capacity of the kidneys seems to be reached, and the quantity eliminated remains quite constant during the next three to eight or more hours, according to the amount taken, and then it diminishes until it is all excreted, some two or three days after a single dose is taken; depending upon the amount taken.

The increase of pulse, respiration and temperature immediately after the taking of the acid is noticable in Experiment I. Then follows the rapid fall of the pulse to normal, and the respirations much below normal, while the temperature rises; but later the temperature also falls below normal, and then with the pulse and respiration it rises above again; and finally all return to the normal standard at the end of two and a half hours after taking the acid. But the remarkable effect, both in health and in disease, is the great reduction of the sensible and actual temperature of the extremities, and this reduction of temperature will be increased by larger or continued doses till the axillary temperature is decidedly lowered; a result which is especially noticed in disease. The acid seems to act especially upon the trophic nerve centres, if such centers exist, which preside over nutrition and the production of animal heat; lessening their activity, and thereby diminishing the temperature, especially in the extremities.

CHICAGO, 1108 Indiana Avenue.

ITINERANT PILE-SURGEONS AND THEIR SECRET.

By EDMUND ANDREWS, A.M., M.D.

PROFESSOR OF SURGERY IN CHICAGO MEDICAL COLLEGE.

A number of men are itinerating in Illinois and the adjacent States, and treating hæmorrhoids by a new method. The secret has been sold to various physicians and other persons, at prices varying from fifty to twelve hundred dollars, and some of the purchasers have left a good practice in the expectation of making a fortune by traveling about and applying the remedy.

The itinerants usually claim to proceed without any operative measures, but a highly intelligent physician of this State, who investigated the matter somewhat, satisfied himself that a hypodermic syringe was used, but was not certain about the fluid injection.

Subsequent investigation has placed the plan more fully in my possession, and I give it here for the benefit of all concerned.

The first thing is to have a good hypodermic syringe, kept in perfect order, with sharp, delicate pipes. The fluid used is strong carbolic acid dissolved in any bland fixed oil. The proportions are usually as follows:

R Crystalized carbolic acid..... $\bar{\text{z}}$ iij.
Pure oil..... f. $\bar{\text{z}}$ i.

Mix.

Some of the itinerants use equal parts of the two ingredients, and some of them substitute glycerine instead of oil, and at least one of them has tried a preparation of ergot.

When the piles are internal, and not readily brought down, a Sims' speculum is employed to uncover them. The operator generally takes only one pile at a time, always selecting the uppermost first, and injects into its interior from four to six drops of the carbolized oil, or rather the oleized carbolic acid. The injection turns the pile white, probably coagulates the blood in its vessels, and results in its shrinking

away without the inflammation being severe enough at any one time, as a general thing, to prevent the patient from attending to his business. The well-known power of carbolic acid to act as a local anæsthetic, antiphlogistic and antisuppurative, favors the progress. When the irritation of the first injection has measurably subsided, another pile is attacked in the same way, and, as the patient cannot see the syringe, he supposes that he has not been subjected to any "operation," which is a great satisfaction to him. The itinerant often call their plan "painless," but it proves in some persons atrociously distressing. The result is in many other cases excellent, so that the plan may turn out to be worthy of a permanent place in the treatment of hæmorrhoids.

However, the question whether it is perfectly safe has yet to be decided. In some instances these itinerants have gotten into an alarm at the condition of their patients, and begged earnestly for advice from men who knew more of surgery than themselves, but I have not yet heard of any actual deaths.

The injection of coagulating fluids into enlarged veins in other parts of the body has been extensively tested, the article used generally being tincture of iron. Maisonneuve, of Paris, practiced this class of injections in a great number of cases with success; but as experience increased dangers were discovered, and a number of patients have almost instantly died under the operation. The mode of death is supposed to have been this: Drops of the coagulating fluid thrown into an enlarged vein may become covered with a thin pellicle of coagulum, and in that state be swept on into the heart, where, by the bursting of the pellicle the fluid is diffused, and a large coagulum may be instantly formed, and death by embolism occur.

If anything analogous should result from the injection of the carbolic acid and oil into the hæmorrhoidal veins, death would not be likely to occur suddenly, because these veins terminate in the portal system, and therefore any encapsuled globules or floating coagula would be arrested in their passage by the capillaries of the liver. Whether the clots thus lodged in the liver would, when large, fatally obstruct the portal vein, and

when small, produce hepatitis and hepatic abscess, is a question which cannot at present be answered. It is to be desired that physicians should carefully note whether any dangerous hepatic complications are developed after this method of treating piles, and if so to report at once to the journals. Honest surgeons will not at present, perhaps, feel justified in risking it, but these rather reckless itinerants will probably test the matter extensively, and it is our duty to observe the results. If the danger of embolism proves to be practically nothing, there is probably little else to be feared, and the operation may be a valuable addition to our resources.

A CASE OF INJURY OF THE SPINE—ENORMOUS ACCUMULATION OF INTESTINAL GAS—EVACUATION WITH ASPIRATION—RECOVERY.

By E. W. LEE, M.D., CHICAGO.

On the evening of the ninth of May I was called to visit J. K., aged thirty-five years, and obtained from him the following history of his case:

Four days previously he was driving his team under a shed, and the wagon-seat being higher than that on which he was accustomed to ride, he got caught between the seat and roof, and was severely crushed. He was removed to his home and a physician called to attend him. His back had been assiduously rubbed with liniments, etc. There had been no action of the bowels from the time of the injury, notwithstanding that purgatives had been freely administered, also enemata. Having patiently listened to his story, I proceeded to examine him, and first feeling his pulse, I was very much astonished to find it extremely feeble—in fact so easily obliterated as to make it a very difficult matter to count it. As well as I could make out, it was not over 115 to 120; his skin was cold, and he was bathed in profuse perspiration; the countenance had that sunken, pinched appearance characteristic of collapse—*his voice was strong*—the whole abdomen was enormously distended. He had been vomiting continuously, the dis-

charges having the odor, as he expressed it, "of a Bohemian water closet." I saw at once that it would be useless to go through the form of administering purgatives, enemata, etc., besides they had been thoroughly tried. I injected $\frac{1}{2}$ gr. sulph. morph. hypodermically to begin with, and as the case seemed desperate, thought the best chance to save the man's life was to directly liberate the accumulation of gas in the abdomen.

I provided myself with an aspirator, and with counsel in the person of my friend Dr. Cooley, who entirely coincided with me as to the course of treatment to be pursued, I selected the smallest needle of the aspirator, and boldly plunged it to the hilt into the most prominent point on the left side; a quantity of gas escaped, making a noise not unlike a "Kiddler" battery in operation; this gas had a most sickening smell, and we judged from it that sphacelus had already set in; this impression being made stronger by the fact that after we had inserted the needle (larger size) into the right side and into the stomach, each time liberating a quantity of gas, and sensibly diminishing the distension, and the morphine having had ample time to have its full effect; his pulse was still weaker, almost gone; his skin colder, and the perspiration more profuse. We supposed the man would not live more than three or four hours (this was at 9 P. M.).

Next morning I was again sent for, and to my surprise heard that the bowels had spontaneously acted three or four hours after we left, and simultaneously the vomiting had ceased; the pulse had returned at the wrist; the distension was considerably diminished; he had partaken of and retained some nourishment, and felt much better. I turned him on his side in order to examine his back. The whole surface was contused, and about the lower end of the dorsal region I discovered that a couple of the spines of the vertebra were fractured. The man went on very well from that time, and has made so far a good recovery. The only hopeful symptom about this case was that the pulse was not high, at the most I do not think it reached 120, but it was impossible to get an accurate count.

I publish this case because I have no doubt that the liberation of the gas proved a strong stimulant to the restoration of peristaltic action, and also as illustrating the impunity with which the peritoneum may be punctured.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES, COMPARED WITH THAT OF OTHER REGIONS.

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(Continued.)

AMPUTATION AT THE KNEE JOINT.

This operation has evidently not been a favorite in the Lake States, as I have no cases of it reported to me. Abroad the following statistics are found:

PRIMARY.

AUTHORITIES.	CASES.	DIED.
Boston City Hosp. Rep. Dr. Cheever	1	0
St. Bartholomew's Hosp., 1863-71	2	0
Mass. Gen. Hosp.	5	3
Circular No. 6, Surg. Gen. U. S. A.	49	16
Crimean War, Schmidt's Jahrbücher, Vol. 156, p. 250	39	31
German-French War, " " " " " "	1	1
American Jour. Med. Sci., 1868, pp. 333, 555. Dr. Brinton ..	109	47
Totals	206	98

Mortality, 48 per cent.

INTERMEDIARY AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Dr. D. W. Cheever, Boston	1	1
St. Bartholomew's Hosp., 1863-71	1	0
Siege of Strassburg, 1870-71. Dr. Herrgolt	3	3
Crimean War, Schmidt's Jahrbücher, Vol. 156, p. 250	8	7
German-French War, " " " " " "	5	4
American Jour. Med. Sci., 1868, pp. 333, 555. Dr. Brinton ..	68	27
Totals	86	42

Mortality, 49 per cent.

PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Guy's Hospital Reports.....	1	0
St. Bartholomew's Hosp., 1863-71.....	6	2
Mass. Gen. Hosp.....	11	4
American Jour. Med. Sci., 1868, pp. 333, 555. Dr. Brinton.....	92	19
British Army Med. Rep.....	1	0
Prof. Billroth, Arch. klin. Chir., B. x.....	7	6
Lücke, Deutsch. Zeitschrift für Chir., Bd. ii.....	1	0
Totals.....	119	31

Mortality, 26 per cent.

TIME OR CAUSES IMPERFECTLY STATED.

AUTHORITIES.	CASES.	DIED.
St. George's Hospital, London.....	7	3
Circular No. 3, Surg. Gen. U. S. Army, Traumatic.....	3	0
" " 6, " " " " " ".....	73	51
Bericht k. k. allg. Krankenhaus, Wien.....	3	2
Statist. des Hôp. de Paris, 1861-2-3.....	2	1
Lücke, Deut. Zeitschrift, B. 2.....	2	1
Zurich Hosp., 1860-67.....	1	1
Arch. klin. Chir., Bd 17, S. 510.....	38	11
Totals.....	129	70

Mortality, 54 per cent.

SUMMARY OF AMPUTATIONS AT THE KNEE JOINT ABROAD.

	CASES.	DIED.	PER CT. MORT.
Primary.....	206	98	48
Intermediary and Secondary combined.....	86	42	49
Pathological.....	119	31	26
Conditions imperfectly stated, but cases nearly all military.....	129	70	54

The pathological cases here are nearly all those called by Brinton "secondary pathological;" that is, cases which are more or less chronic. The importance of the distinction is that amputations in the acute inflammatory stage of the knee joint are very fatal, whether performed at the knee or just above it, and should be avoided if possible.

OPINIONS OF AUTHORS.

Amputation at the knee joint, instead of at the lower third of the thigh, was first performed by Fabricius Hildanus, in

1581, and re-introduced to the profession mainly by the efforts of Velpeau, Markoe and Brinton. It was first performed in America by Prof. Nathan Smith.

The operation was at first mainly performed by leaving the condyles in the stump. Mr. Carden, of Great Britain, introduced as an improvement the plan of sawing off the articular portion of the condyles, and the statistics of that country apparently showed about six per cent. more safety by that method, but Dr. Brinton, (*Am. Jour. Med. Sci.*, 1868,) adds the American statistics, which change the result, and render the two methods almost exactly equal, as may be seen in the following figures:

CONDYLES LEFT.		CASES.	DIED.	PR. CT. MORT.
American Cases.....	.....	45	12	27
Foreign Cases.....	.....	34	10	29
Totals.....	.....	79	22	28
CONDYLES REMOVED.		CASES.	DIED.	PR. CT. MORT.
American Cases.....	.....	19	6	32
Foreign Cases.....	.....	13	3	23
Totals.....	.....	32	9	28

Dr. Brinton compares the mortality of amputation at the knee joint with that of amputations of the thigh, in order to show that the knee joint is much the safer location. In doing so, however, he commits the mistake of making his comparison with amputations in all parts of the thigh together. This is not fair. Cases which require amputation at the middle and upper thirds of the thigh, do not admit of the knee joint as a substitute. The only thigh amputations which allow the choice are those at the lower third. If now we take our summary of amputations in the lower third abroad, and place them beside the corresponding knee amputations, we get the following result:

MORTALITY OF AMPUTATIONS.		At Lower 3d of Thigh.	At Knee Joint.
Traumatic Primary.....	.....	45 per cent.	48 per cent.
Traumatic Secondary.....	.....	60 " "	49 " "
Pathological.....	.....	20 " "	26 " "
Averages.....	.....	42 " "	41 " "

The superiority of the knee joint amputation over that at lower third of the thigh averages only one per cent., a difference too small to be trusted, especially as part of the cases are picked up from scattering operations reported in journals, a method of collection which always gives too large a proportion of successful results.

Mr. Liston, in Holmes' System of Surgery, p. 606, praises the operation exceedingly for the small amount of tissue divided, the excellence of the flap, the absence of exfoliation of bone and great length and usefulness of the stump.

T. Holmes (Surgery, its Principles and Practice, p. 923,) says he is "rather fond" of the operation.

Gant's Surgery, p. 706, says the "results with regard to the stump are advantageous."

Gross' System of Surgery, Vol. II., p. 1122, praises the operation because of its length of stump, the fact that it avoids some dangers by not opening the medullary canal, has no exfoliation of bone, and has a low mortality; but he opposes its performance when any point lower down is admissible.

Parker, of New York, in the *New York Journal of Medicine*, Vol. IX., N. S., p. 308, advocates it as "justifiable," and giving a good stump.

Dr. Henry Smith, in his Operative Surgery, at first opposed it, but later, in his Principles and Practice of Surgery, Vol. II., p. 704, retracted his first opinion, and though still in doubt, inclined to favor it.

Markoe of New York, Brinton of Philadelphia, Erichsen of London, and Von Langenbeck of Berlin, all favor the operation.

Of the older surgeons, Velpeau, Textor, Kern, Volpi, Brasdor, J. L. Petit, Hoin and Blandin advocate the operation; while Dupuytren, Larrey and Zang unconditionally opposed it.

CONCLUSIONS.

It is evident that the mass of the best writers now favor the amputation at the knee joint whenever the condition admits of its being substituted for that of the lower third of the

thigh. Its danger is perhaps a little less, and the stump is better. It is therefore to be preferred in such cases. As to the question whether simple disarticulation, or sawing through the condyles is the best, the statistics show the danger to be the same, when the American and Foreign cases are added together. It has been thought that the presence of the cartilage and synovial surface would have some of the same evils which result from opening a knee joint to the air, but experience apparently shows otherwise, or if the presence of those tissues is somewhat objectionable, that danger is balanced by the increased risk of pyaemia induced when the cancellous tissue of the condyles is sawn through.

AMPUTATION OF THE LEG.

Of this very common operation I find the following cases recorded in the Lake States:

TABLE IX.

AMPUTATION OF THE LEG IN THE LAKE STATES.

No. Am- drew's Sur. Rec	OPERATOR.	Age	REASON FOR OPERATION.	COMPLICATIONS.	Operat'n	Cond. at opr	Time to operation.	Result.	Time to death or recovery	Practice.
644	Dr. E. Andrews	35	Both feet crushed.	Mortification	Dbl. Amp	Good		Recover'd	8 mos.	Private
1553	"	"	Leg crushed by cars.	Kept in close, foul room.	Middle 3d	Good	Primary	"	"	"
1601	"	"	Neuralgic stump of leg.	None	Re-a. up. 3	Good	4 years	Recover'd	30 days	Hospital.
1857	"	"	Leg and arm crushed by cars	Great shock—amp of arm	Middle 3d	Bad.	Primary	Died	2 "	"
1943	"	"	Large ulcer from burn	None	Lower 3d	Good	2 years	Recover'd	6 weeks	"
5300	"	"	Fractured leg by cars.	"	Middle 3d	"	Primary	"	10 "	"
5302	"	"	Fractured leg by cars.	"	Circ. m. 3d	"	"	"	8 "	"
5508	"	"	Foot crushed off	"	Upper 3d	"	"	"	8 mos.	"
5507	"	"	Leg crushed by cars	Severe hemorrhage.	Upper 3d	Med.	"	"	5 weeks	"
5601	"	"	Leg crushed by cars	Mortification of foot	Middle 3d	Bad.	3 days	Died	6 days	"
5196	"	"	Comp. fract. foot & leg. Caries of tibia	None	Middle 3d	"	Secondary	Recover'd	"	Private
6917	"	"	60 Caries of tibia.	None	Upper 3d	"	Several yrs.	"	"	"
6912	"	"	55 Caries of ankle	Calcified arteries, exhaus	Middle 3d	"	3 weeks	Died	3 days	"
6200	"	"	25 Comp. fract. of ankle	None	Circ. low. 3	Good	Primary	Recover'd	"	"
"	La Count.	45	Foot and ankle torn badly.	None	"	"	"	"	"	"
"	"	30	Wound of ant. tibial art. Gangrene	Hemorrhage	" mid. 3	Bad.	Secondary	"	"	"
"	"	16	Comp. fract. tibia and fibula	None	Flap low. 3	Med.	Primary	"	"	"
6600	E. Andrews	25	Diseased foot from injury	None	Circ.	"	Secondary	"	6 weeks	Hospital.
675	"	62	Comp. and commin. fract. of leg.	Weak with age	Flap up 3	"	Primary	Died	22 "	"
7012	"	30	Senile gangrene	Great shock	low. 3	"	Primary	"	5 days	"
"	"	12	Both feet crushed	"	Lower 3d	"	"	Recover'd	1 "	Private
"	D. Brainard	53	Caries of ankle	"	Flap up. 3	"	Primary	"	36 days	Hospital.
"	"	45	Comp. fract. of ankle.	"	Upper 3d	"	4 hours	Died	6 hours	Private
"	Ammerman	20	Necrosis of tibia and fibula.	"	"	"	12 "	Recover'd	"	"
"	A. Fisher.	"	Comp. and commin. fract. leg & arm	Great shock, ampt. of arm	"	"	Primary	"	"	Hospital.
"	E. Owens	"	Comp. and commin. fract. leg. R. R.	"	"	"	"	"	"	"
"	"	"	R. R. fracture.	"	"	"	"	"	"	"
"	"	"	Disease of parts	"	"	"	"	"	"	"
"	Cook Co. Hosp.	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"
"	H. Wardner.	17	Leg crushed by falling tree	Shock and contusion of	Upper 3d	Bad.	Primary	"	4 days	Private
"	"	11	Leg crushed on R. R. and fract. elbow	pelvis, thigh & abdomen	Middle 3d	Med.	"	Recover'd	2 mos.	"
"	"	25	Foot and ankle crushed by boats	Shock and hemorrhage.	Lower 3d	"	"	"	6 weeks	"

TABLE IX.—Continued.

Dr. N. Senn.....	10	Ankle cut by reaper.....	Shock and hemorrhage.....	Lower 3d	Bad.....	6 hours.....	Recovered.....	6 weeks.....	Private.....
".....	21	Caries of ankle and tarsus fr. injury.....	Shock and hemorrhage.....	Circ. m. 3d	Bad.....	1 year.....	".....	4 ".....	".....
".....	21	Leg crushed by runaway.....	Shock and hemorrhage.....	Upper 3d	Bad.....	8 hours.....	".....	4 ".....	".....
H. Warner.....	25	Ankle cut by axe.....	Tuberculous diathesis.....	Middle 3d	Bad.....	3 days.....	".....	6 ".....	".....
".....	35	Caries of ankle.....	None.....	Upper 3d	Good.....	1 year.....	".....	6 ".....	".....
M. Waterhouse.....	12	Leg crushed by car wheels.....	None.....	Upper 3d	Good.....	Primary.....	Died.....	21 days.....	".....
".....	75	Leg crushed by wagon wheels.....	Anemia.....	".....	Bad.....	Primary.....	Recover'd.....	3 ".....	".....
E. D. Kittoe.....	16	Leg torn by threshing machine.....	Great shock.....	".....	".....	8 hours.....	".....	".....	".....
".....	40	Leg torn by threshing machine.....	None.....	".....	Good.....	6 ".....	".....	".....	".....
E. Kittoe, Jr.....	42	Bad comp. and commin. fract. of leg.....	Intemperate.....	".....	Bad.....	3 months.....	".....	".....	".....
J. Andrews.....	15	Comp. fract. of leg.....	None.....	Flap up. 3	Good.....	Secondary.....	Died.....	15 days.....	".....
E. W. Lee.....	30	Comp. fract. of leg.....	None.....	".....	Bad.....	Primary.....	Recover'd.....	24 hours.....	".....
".....	8	Comp. fract. of leg.....	None.....	".....	Med.....	".....	".....	4 weeks.....	".....
".....	22	Comp. fract. of leg.....	None.....	".....	".....	".....	".....	14 ".....	".....
".....	9	Comp. fract. of leg.....	None.....	".....	".....	".....	".....	10 days.....	".....
".....	25	Comp. fract. of leg.....	Concussion of brain.....	".....	".....	".....	".....	5 ".....	".....
".....	45	Comp. fract. of leg.....	Concussion of brain.....	".....	Bad.....	".....	".....	".....	".....
E. Andrews.....	22	Feet crushed by cars.....	Great shock. Pirogoff's amput. of opposite foot eight days after.....	".....	".....	".....	".....	18 hours.....	".....
".....	27	Amurisan varix of anterior tibial vessels, caused by scythe when 13.....	".....	Lower 3d	Bad.....	".....	Recover'd.....	".....	Hospital.....
S. Marks.....	60	Caries of the tarsus.....	".....	Upper 3d	Good.....	14 years.....	Died.....	9 days.....	Hospital.....
".....	8	Gangrene of foot after R. R. accident, fracture of the other leg.....	".....	Low 3flap	Med.....	About 6 yrs.....	Recover'd.....	8 weeks.....	".....
".....	58	Caries of the tibia.....	".....	".....	Bad.....	15 days.....	".....	4 ".....	".....
".....	19	Disease of ends of bones, following primary amputation of leg.....	".....	Upper 3d	Good.....	6 years.....	".....	".....	Private.....
".....	9	Both ankles crushed by locomotive.....	Both legs.....	Mid. 3 flap	Med.....	9 months.....	".....	8 ".....	Hospital.....
".....	41	Both feet frozen. Drunk.....	".....	Low 3flap	Bad.....	2 hours.....	".....	4 ".....	Private.....
".....	30	Foot and ankle crushed by locomotive.....	".....	Mid. 3 flap	Bad.....	8 days.....	".....	6 ".....	Hospital.....
".....	23	Foot crushed by cars.....	".....	Low 3flap	Good.....	Primary.....	".....	8 ".....	Private.....
".....	28	Caries of tarsus.....	".....	".....	".....	Secondary.....	".....	6 ".....	".....
".....	20	Leg cut off with steamboat cable immediately above ankle.....	".....	".....	".....	3 years.....	".....	8 ".....	Hospital.....
".....	32	Foot and low. port. of tibia crushed.....	".....	".....	".....	Primary.....	".....	3 mos.....	".....
".....	58	Caries of tarsus.....	".....	Mid. 3 flap	Med.....	21 years.....	".....	4 weeks.....	Private.....
".....	55	Caries of tarsus and lower end tibia.....	".....	Low 3flap	Med.....	9 years.....	".....	6 ".....	Hospital.....
".....	19	Caries of tibia.....	".....	Mid. 3 flap	Bad.....	3 years.....	".....	6 mos.....	Private.....
".....	43	Caries of tarsus.....	".....	Upper 3d	Bad.....	1 year.....	".....	3 mos.....	Hospital.....
".....	42	Caries of tarsus.....	".....	Low 3flap	Bad.....	2½ years.....	Died.....	7 days.....	Private.....

RECAPITULATION.

	CASES.	DIED.	PER CENT. MORTALITY.
Total of all locations	70	16	23
“ upper 3d	22	8	36
“ middle 3d	16	4	25
“ lower 3d	23	3	13
Primary, all locations	32	9	28
Intermediary and secondary, all locations	16	3	19
Pathological, all locations	13	3	23
Upper 3d, primary	13	6	
“ intermediary and secondary combined	4	1	
“ pathological	5	1	
Middle 3d, traumatic and primary	7	2	
“ intermediary and secondary combined	6	1	
“ pathological	3	1	
Lower 3d, traumatic, primary	12	1	
“ intermediate and secondary combined	6	1	
“ pathological	5	1	
Conditions imperfectly stated	9	1	
Hospital practice	28	5	18
Private practice	41	11	27

These cases are not sufficiently numerous to settle all points, but they show that, like amputations of the thigh, those nearest the body are most dangerous. The upper 3d has a mortality of 36 per cent., the middle of 25 per cent., and the lower 3d of 13 per cent.

Hospital cases, by some accidental coincidence show better than those in private practice.

AMPUTATIONS OF THE LEG ABROAD.

Of these the literature of surgery furnishes a prodigious list, and, were they properly classified, they would settle nearly all questions capable of statistical solution. Unfortunately they are very imperfect in detail, and only a portion of them can be classified.

AMPUTATION OF THE LEG ABROAD; UPPER 3D, PRIMARY.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	4	2
Mass. Gen. Hosp. Rept., 1871	26	7
Dr. Herrgolt, Siege of Strassburg, 1870-71	14	5
Warren's Surgery, Confed. Army Rept.	41	17
Totals	85	31

Mortality, 36 per cent.

AMPUTATION OF THE LEG ABROAD; UPPER 3D, INTERMEDIARY AND
SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	1	0
" Mass. Gen. Hosp., 1871	13	4
Dr. Herrgolt, Siege of Strassburg, 1870-71	6	3
Dr. E. Warren's Surg., p. 394, Confederate Army U. S.	33	18
Totals	53	25

Mortality, 47 per cent.

AMPUTATION OF THE LEG ABROAD; UPPER 3D, PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Rept. Bost. City Hosp., Dr. Cheever	1	1
" Mass. Gen. Hosp.,	42	7
" Rostock Hosp. Rep	4	2
Statist. des Hôpitaux de Paris, 1861-62-63	15	9
Totals	62	19

Mortality, 31 per cent.

AMPUTATION OF THE LEG ABROAD; MIDDLE 3D, PRIMARY.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	9	5
" Mass. Gen. Hosp., 1871	47	19
" U. S. Marine Hosps., Dr. Woodworth	1	1
Dr. Herrgolt, Siege of Strassburg, 1870-71	2	0
Dr. E. Warren's Surg., p. 394, Confederate Army U. S.	8	5
Totals	67	30

Mortality, 45 per cent.

AMPUTATION OF THE LEG ABROAD; MIDDLE 3D, INTERMEDIARY
AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	3	1
" Mass. Gen. Hosp., 1871	20	8
Dr. Herrgolt, Siege of Strassburgh, 1870-71	1	1
Dr. E. Warren's Surg., p. 394, Confed. Army	3	2
Totals	27	12

Mortality, 44 per cent.

AMPUTATION MIDDLE 3D OF LEG ABROAD, PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	3	0
" Mass. Gen. " 1871	46	3
Totals	49	3

Mortality, 6 per cent.

AMPUTATION LOWER 3D OF LEG ABROAD, PRIMARY.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp., Dr. Cheever	3	0
" Mass. Gen. Hosp., 1871	20	7
Dr. Herrgolt, Siege of Strassburg, 1870-71	2	1
Leeds Gen. Infirmary, Dr. Nunneley	69	28
Dr. E. Warren's Surg. Confederate Army, p. 394	5	1
Totals	99	37

Mortality, 37 per cent.

AMPUTATION OF LOWER 3D OF LEG ABROAD, INTERMEDIARY AND SECONDARY COMBINED.

AUTHORITIES.	CASES.	DIED.
Rept. Boston City Hosp.	6	1
" Mass. Gen. Hosp. 1871	15	5
" U. S. Marine Hosp.	2	0
Dr. Herrgolt, Siege of Strassburg, 1870-71	2	1
Dr. E. Warren's Surg., p. 394, Confederate Army	6	2
Totals	31	9

Mortality, 29 per cent.

AMPUTATION OF THE LOWER 3D OF LEG ABROAD, PATHOLOGICAL.

AUTHORITIES.	CASES.	DIED.
Boston City Hosp. Rep.	1	0
Rostock Hosp. Rept.	2	0
Mass. Gen. Hosp. Rept. 1871	28	5
Totals	31	5

Mortality 16 per cent.

AMPUTATION OF THE LEG ABROAD, IMPERFECTLY CLASSIFIED.

AUTHORITIES.	CASES.	DIED.
Circular No. 6, Surg. Gen. U. S. A.	2348	611
Statistics of Crimean War	1361	940
" Italian War	475	326
" German-French War	141	70
British Country Hospitals	838	177
St. Bartholomew's Hosp., 1869	193	61
K. k. allg. Krankenhaus Bericht, Wien	241	71
Leeds General Infirmary	99	15
Parisian Hospitals	266	160
Edinburg Infirmary, 1859 to 1868	86	38
Glasgow " 1844 to 1868	180	77
Guy's Hospital, 1861 to 1868	102	36
London " 1862 to 1868	67	39
Combined Reports from various authors	558	212
Totals	6955	2833

Mortality, 40 per cent.

GENERAL SUMMARY OF AMPUTATIONS OF THE LEG.

TOTALS.	LAKE STATES.			ABROAD.		
	CASE	DIED	PER CT. MORT	CASE	DIED	PER CT. MORT
Total of all kinds	70	16	23	7459	3004	40
" private practice	41	11	27			
" hospital "	28	5	18			
" upper 3d	22	8	36	200	75	38
" middle 3d	16	4	25	143	45	31
" lower 3d	23	3	13	161	51	32
Upper 3d, primary	13	6		85	31	36
" intermediary and secondary	4	1		53	25	47
" pathological	5	1		62	19	31
Middle 3d, primary	7	2		67	30	45
" intermediary and secondary	6	1		27	12	44
" pathological	3	1		49	3	6
Lower 3d, primary	12	1		99	37	37
" intermediary and secondary	6	1		31	9	29
" pathological	5	1		31	5	16

The small proportion of perfectly classified statistics renders this summary a little irregular, but still it shows the general decrease of danger as we recede from the body, and the superior safety of pathological amputations (those of "expediency" always excepted) over traumatic cases.

OPINIONS OF AUTHORS AND CONCLUSIONS.

Authors say very little about the special indications demanding amputation of the leg. In general terms they are such as demand amputation in any other part of the body. The surgeon must not be swayed, as is too often the case, by the ghastly appearance of a bad compound fracture, but consider the intrinsic condition of the limb as to circulation and innervation. If these functions are fairly preserved, a great amount of bony injury can be successfully overcome. In war a bullet traversing from before backward may shatter the tibia, bury a hundred of its fragments in the tissues of the calf, and destroy the posterior tibial artery and nerve, and yet the wound make no great external display. On the other hand, if the ball traverse from behind forward, the artery and nerve may escape, and the fragments of bone be driven out into the external air in front. The wound is large, ragged, and terrible to the eye, but much less dangerous than the former. Yet many a surgeon, in looking over his patients, has been moved by mere external appearances to amputate the better limb and try to save the worse one. Analogous errors are common in civil practice.

A mere bad compound fracture does not necessarily require amputation. Compound dislocations of the ankle often require resection, but rarely amputation. It is much disputed whether it is best to amputate anywhere for senile gangrene in the foot. If, however, it is decided to be best, the amputation should be at least as high as the upper third of the leg, and not in the foot. Some advise the lower third of the thigh.

Where the injury or disease requiring amputation of the leg admits of a choice of location, all authors agree that it should be as low down as possible, in order to reduce the risk to the lowest attainable figure. In the leg, as well as elsewhere, amputations of "expediency," *i. e.*, for deformities, etc., have the general risk of traumatic, and not the slighter one of pathological cases.

In compound fractures and dislocations of the ankle joint, amputation should not be performed unless mortification of

the foot or other imperative reasons demand it. Resection has the best results in those cases, conservative treatment next, and amputation the worst.

SYME'S AMPUTATION AT THE ANKLE.

I have not obtained a single recorded case of this operation in the Lake States, but the literature of the profession gives us many cases from abroad, though generally not classified. They are as follows:

AUTHORITIES.	CASES.	DIED.
Deutsch Zeitschrift, fur Chir. Bd. I. und II.....	3	0
Dr. Herrgolt, Seige of Strassburg, 1870-71.....	2	1
Dr. E. Warren's Surg., Confederate Army.....	2	1
Hancock.....	219	17
Birmingham Hospt. 1858-64, Richardson.....	45	7
Rostock Hospt. Rept. 1868.....	6	1
Brit. Army Med. Rep.....	2	0
Archiv. Klin. Chir. Bd. X, Billroth.....	2	0
" " " " X, XIII and XVII.....	44	3
Totals.....	325	30

Mortality, 9 per cent.

We will discuss the merits and opinions on this operation at the same time with the next one.

PIROGOFF'S AMPUTATION.

Of this we find in the Lake States quite a number of cases which are given below:

TABLE X.

PIROGOFF'S AMPUTATION IN THE LAKE STATES.

No.	OPERATOR OR REPORTER.	A. C.	CAUSE OF OPERATION.	COMPLICATIONS.	Opera- tion.	Con- diti'n	Time of operation	Result.	Time to death or recovery.	Practice.
1866	Dr. E. Andrews	22	Both feet frozen.	Both feet amp. at once.	Pirogoff's	Good	Second'y.	Died.	16 days	Hosp.
2063	"	"	Foot crushed.	Intemperate.	"	Med.	Primary	"	51 days	"
5428	"	"	"	"	"	Good	"	Recovered	"	"
5684	"	14	"	None	"	"	13 days	"	5 months	"
5259	"	"	" and mortified.	"	"	"	Primary	"	4 1/2 ms.	"
1907	H. A. Johnson	18	"	"	"	"	Primary	"	2 1/2 ms.	"
8430	E. Andrews	39	Caries of tarsus	None	"	"	18 ms.	"	12 ms.	"
8518	"	"	Foot crushed.	"	"	Med.	Primary	"	"	"
	J. S. Sherman	25	"	Op. leg cr. and amp. 10 d.	"	"	10 days	"	"	"

RECAPITULATION.

	CASES.	DIED.
Total (all Hospital patients)	9	2
Primary	5	1
Secondary and intermediary	3	1
Pathological	1	0

Total mortality in the Lake States, 22 per cent.

The cases are not numerous enough to furnish by themselves any special conclusions.

Abroad the literature furnishes us a moderate number, mostly unclassified.

PIROGOFF'S AMPUTATION ABROAD.

AUTHORITIES.	CASES.	DIED.
Penn. Hosp.	2	0
St. George's Hosp.	2	1
Rostock Hospt. Rept.	4	1
Dr. E. Warren's surg., p. 394, Confederate Army	1	0
Bericht k. k. allg. Krankenhaus, Wien	26	9
Braithwaite's Retrospect, Jan. 1867	58	5
Archiv. klin. Chir. Bd. X., Billroth	11	4
" " " " VIII	1	0
Deutsch. Zeit. f. Chir. B. I, S. 187; B. II., S. 380	7	0
Totals	112	20

Mortality, 18 per cent.

OPINIONS OF AUTHORS.

Syme's and Pirogoff's amputations are rivals of each other, being applied to the same class of cases.

The American Surgeon General's Circular, No. 6, says that Pirogoff's operation is regarded with little favor.

Baron von Horrowitz, the Surgeon-in-Chief of the Russian Marine, says that Pirogoff himself has abandoned it on account of the frequent occurrence of necrosis of the os calcis.

Dr. Stephen Smith says the stump of Syme's operation is better than that of Pirogoff.

Hewson, on the contrary, (quoted in Ashurst's Surgery, p. 122,) says that Pirogoff's stump has some decided advantages over Syme's, in that the patient can walk and run upon it.

Liston, in Holmes' System of Surgery, Vol. V., p. 644, prefers Syme's amputation as simpler, easier, and less liable to caries.

Gant's Surgery, p. 701, says this liability to caries is not present in traumatic cases.

Erichsen's Surgery, Vol. I., pp. 78, 79, speaks favorably of Pirogoff's operation, and thinks the objections to it not very well grounded in experience.

Gross' Surgery, Vol. II, p. 1119, prefers amputation of the lower 3d of the leg to either Pirogoff's or Syme's operation.

Dr. Stephen Smith, on the contrary, in his contribution to the papers of the United States Sanitary Commission, concludes that Syme's amputation is 50 per cent. safer than that at the lower 3d of the leg.

Hamilton's Surgery, p. 368, says that the stump in both Pirogoff's and Syme's operation is often most excellent.

Bryant's Surgery, p. 964, speaks in the highest terms both of Pirogoff's and Syme's amputations.

CONCLUSIONS

As usual, the opinions of surgeons are a little contradictory of each other, yet the majority favor Syme's rather than Pirogoff's method. The statistics, though less perfect than could be desired, still point to the same conclusion, for we have as follows:

	CASES.	DIED.	MORTALITY.
Syme's amputation.....	325	30	9 per ct.
Pirogoff's ".....	112	20	18 "

It would appear, therefore, that thus far Pirogoff's operation has had double the mortality of Syme's, an important fact scarcely referred to by our best authors.

It is evident, therefore, that as facts and opinions now appear, they compel us to consider Syme's operation as much the best.

The military statistics of Demme, Stromeyer and Legouest, give for compound fractures of the foot much better results

for conservative treatment than for any kind of amputation. The superiority of their conservative figures varies from 28 to 59 per cent.

It would seem, therefore, that an amputation of the foot is not demanded for ordinary bad compound fractures, but only for that portion of them where there is such an amount of mortification as compels it.

(To be continued.)

THE PATHOLOGICAL TRANSACTIONS OF THE CHICAGO MEDICAL SOCIETY—No. 1.

EDITED BY DR. I. N. DANFORTH.

EXPLANATORY.

At its regular meeting, held on the evening of June 5, 1876, the "Chicago Medical Society" voted to publish its Pathological Transactions, and the undersigned was, with gratifying unanimity, elected editor. In carrying out this plan it is expected that a two-fold object will be accomplished, namely: *First*—to induce the members of the Society to promptly and accurately report their interesting cases, especially those which are accompanied by morbid specimens either of *ante* or *post-mortem* derivation; and, *Second*—to permanently record such cases, so that they shall be accessible to the profession at large for present profit, and future reference.

The editors of the CHICAGO MEDICAL JOURNAL AND EXAMINER having courteously proffered the use of their columns, the Transactions will, for the present at least, be published as an integral part of the JOURNAL AND EXAMINER. The liberality and enterprise of the publishers of the JOURNAL AND EXAMINER will enable the editor of the Transactions to present illustrations to all articles, which will be rendered more valuable thereby.

Copies of the Transactions alone, paged consecutively for future binding, can be obtained of the publishers, Messrs. W. B. Keen, Cooke & Co., at a cost of twenty-five cents per copy.

The Transactions will appear as often as circumstances

require, or as often as a sufficient amount of really valuable material can be secured. For the present it is probable that the numbers will be issued at intervals of about three months. It will be the aim of the editor to make the Transactions a repository of valuable and, so far as possible, original pathological knowledge. The value of researches in the domain of pathology and pathological histology is no longer a matter of doubt. The Chicago Medical Society recognizes this fact; and in commencing the publication of its Pathological Transactions it does but give expression to its desire to do its part in hastening the day when the science of medicine shall be a *science* indeed.

In conclusion the editor earnestly solicits the cheerful and constant support and assistance of the members of the Society, without which his own efforts must necessarily prove both futile and fruitless, but with which much valuable work can be done.

I. N. DANFORTH.

I.

OCCLUSION OF THE URETER BY A CALCULUS.

BY DR. D. W. GRAHAM.

This specimen was accidentally found while eviscerating a subject in the dissecting room some two weeks after it had been received. The subject was a female, aged probably thirty-five years, with an average amount of adipose tissue. It was impossible to get the facts in regard to the history of the patient or the particulars of her illness. But we have the meager information that she was confined, and taken with puerperal fever, of which she died. So far as could be ascertained she had never complained of any symptoms indicating renal disease. Those who made the autopsy had evidently not been led to suspect any disease of those organs, for all the thoracic and pelvic viscera, and all the abdominal except the kidneys, had been thoroughly examined; they remained in situ. There was considerable hypertrophy of the right kidney, but otherwise its gross appearances were normal. The left kidney was so altered in outline and consistence that it was with difficulty recognized. It consisted of a pear-shaped sac, not much

larger than the normal kidney, which was filled with a dark-colored fluid, and this fluid had the odor of decomposing urine. The walls of the sac were from one-quarter to one-half inch in thickness in different portions. The capsule was thickened, and united to surrounding structures by inflammatory adhesions. The connective tissue beneath the mucous lining of the distended pelvis of the organ was considerably hypertrophied. The pelvis contained three urinary calculi — two of them about the size of beans, one as large as a chestnut, but irregularly cruciform, the long limb of the cross being inserted into the commencement of the ureter, and so completely closing it that firm pressure upon the kidney failed to empty it of its contents. After laying the sac open and evacuating it, it was referred to Dr. I. N. Danforth for microscopic examination.

Microscopy.—Sections were made from various parts of the sac, whose walls varied much in thickness and solidity of texture. I noticed the following microscopic appearances: The connective tissue in all parts of the organ was greatly increased, and the connective tissue corpuseles were multiplied. The cortical portion was condensed, the malpighian bodies were pushed and huddled together in irregular groups, their capillary plexuses being generally condensed, or possibly quite collapsed, by the proliferation of the endothelium of the capsule. The convoluted tubes were sometimes pinched by pressure of the hyperplastic connective tissue, sometimes distended by the accumulation of their thrown off lining cells; hence they were of very unequal caliber. The pyramids were nearly obliterated, and the straight tubes were shortened, distorted, or doubled upon themselves by pressure. In one place I found what I thought might be the remains of a pyramid, and upon making sections I could recognize the straight tubes, in a comparatively efficient condition. I present a camera drawing of a portion of one of the sections, the intertubular connective tissue being omitted. These tubes could be traced upwards until they became convoluted, and in this portion of the organ the glomeruli were but little changed. The coats of the vessels were generally thickened; and this was particularly noticeable in the tunica adventitia.

I. N. D.

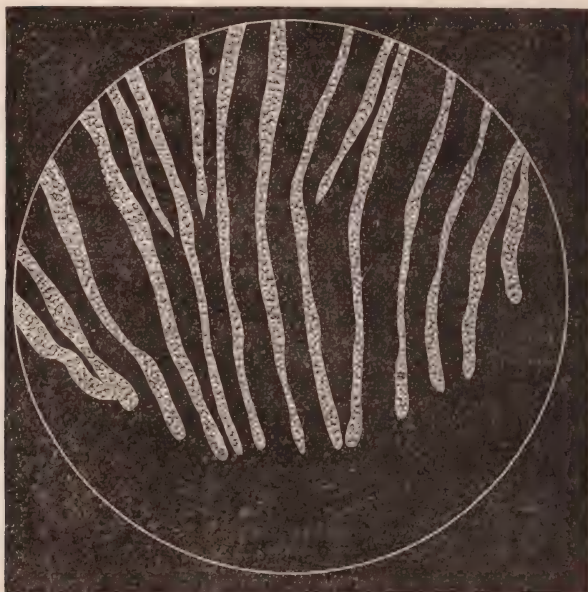


Fig. 1. To illustrate the appearance of the remains of the tubuli, in Dr. Graham's case. The inequality in the size of the tubes is well shown. (Tolles, one inch objective.)

Reported January 4, 1875.

II.

ADENOID (HODGKIN'S) DISEASE.

By DR. CHAS. WARRINGTON EARLE.

Mark L. Covell, aged twenty-six, died November 20, 1875. He was under my professional care sixteen days. During that time his disease was characterized by enlargement of the cervical, axillary and inguinal glands, extreme dyspnœa, effusions into the serous cavities, and rapidly advancing anæmia.

At my first visit I learned that some ten days before he had been seized with a terrible paroxysm of dyspnœa, for the relief of which the nearest physician was summoned. The disease was thought to be of a serious pulmonary character, and the patient was advised to visit Colorado. At this time I was requested to see the case. I found him sitting up, free from pain, pulse at one hundred, temperature normal. His respiration, however, was greatly accelerated, and his face and neck

presented a most remarkable appearance — the former being puffy and cyanotic, and the anterior and lateral portions of the latter so swollen that at first glance one would say that there was a tremendous enlargement of the thyroid gland. Upon examination, however, I found all the superficial veins of the head and neck enormously distended with blood, as were also the capillaries, giving the cyanotic hue mentioned above, while on the anterior part of the chest a large number of small ecchymosed spots could be seen, which were the result of small ruptured blood vessels. Wherever a lymphatic gland could be detected in the neck or axilla, it was found to be enlarged and indurated, but *not* tender or inflamed. There was dullness post sternum, respiratory sounds exaggerated in upper part of right lung, and evidence of considerable effusion in right pleura. The appetite was poor, bowels regular; no signs, from careful examination, of any kidney complication.

For three days I administered diuretics and cholagogue cathartics, hoping to diminish the amount of fluid in the chest and relieve the dyspnea. On the fourth day, November 8th, I performed aspiration, and drew away forty-three ounces of a yellow-colored fluid. The patient was now greatly relieved; the lividity of the integuments lessened, the swollen condition largely diminished, the breathing quite natural. The anæmia continued to increase, however; the glands were large and hard, and the effusion into the right cavity rapidly recommenced. Tonics and alteratives were of no avail. November 16th, drew away twenty-five ounces of a sanguineous-colored fluid from same cavity. November 18th, pulse 105, temperature normal, respiration 25. November 19th, pulse 110, temperature normal; evening, pulse very weak and rapid, greatly prostrated, intellect clear. Death next morning.

Autopsy, November 21st; present, Drs. Graham and Van Buren. The body was not markedly emaciated; the superficial enlarged glands could be easily distinguished; the ecchymosed spots upon the anterior part of the chest were plainly visible. The head was not opened. The left lung was healthy; the pleura on this side contained two ounces of slightly yellow serum. The right lung was hepatized to a considerable extent;

slight adhesions existed, and in the pleural cavity of this side was found forty-eight ounces of serum and blood. The mediastinal space was filled with an accumulation of enlarged glands, forming one large mass, reaching from the middle of and involving the trachea to the ensiform cartilage, impinging also on both lungs, and on the left pressing against the pericardium and contents. On the left side of this tumor, or more correctly mass of tumors, at the point where it came in contact with the heart and membranes, was a smooth, glistening surface, six inches in length by three in breadth, caused undoubtedly by the constant friction of this organ. Within the pericardial sac was found eight ounces of sero-sanguineous fluid. The liver was somewhat soft, the spleen normal. The mass of glands was referred to Dr. O. C. Oliver for microscopic examination.

Microscopy.—The tumor, as received from Dr. Earle, presented the appearance of having been very imperfectly preserved, it having, as I was told, been immersed in "Chloral Hydrate solution;" but however well this chemical preserves animal tissues under proper conditions, it had in this instance partially failed, owing in all likelihood to its volume having been relatively too small. Cubical pieces $\frac{1}{4}$ inch to $\frac{1}{2}$ inch in size were removed from different portions of the tumor, and immersed in a solution of chromic acid of two per cent. strength. In this they were permitted to remain for about two weeks, when sections were made which were immersed in alcohol diluted with its bulk of water. The specimens were next stained with the ammoniacal solution of carmine, after which the silver staining method was employed; and after a great number of trials and some modifications, a passable result was obtained.

A careful study of the specimens seems to me to warrant the following observations: The change in the mass of lymphatic glands originally composing the tumor did not seem to be one of heterogeneous growth, but rather of hypertrophy. This conclusion is arrived at after a careful study of the microscopic appearances, for these reasons, namely: In no case were the atypical cells characteristic of malignant

growths observed. The normal structure did not seem to be greatly altered in its appearance beyond what will be noted hereafter. The connective tissue seemed to be relatively greatly increased, but there were not visible the connective tissue corpuscles, which one would expect to find in abundance, but its substance was infiltrated with lymphoid cells. The lymph spaces presented the appearance in some portions of their course, of having become "clogged" up with the debris of lymphoid cells, together with the cells themselves, leading to a gradual obliteration of their caliber. To sum up, then, it seems that the tumor consisted of hypertrophied glandular tissue, with, perhaps, "sub-acute inflammation" products. The infiltrated connective tissue seems to warrant this hypothesis.

This hasty and somewhat incomplete report is rendered necessary by the condition of the specimen. O. C. O.

Reported February 7, 1876.

III.

CASE OF ASPERGILLUS NIGRICANS.

By Dr. F. C. HOTZ.

The following history was obtained: Mrs. P., aged 26, of Winona, Minn., while pregnant became hard of hearing, about three years ago; never had any earache or sore throat. Soon after her confinement she was troubled with an itching and burning in her left ear, which did not subside until a little watery secretion was discharged from the external meatus. This attack was repeated almost every third month, but always subsided spontaneously. A change, however, was observed in the character of the discharge; it was watery at first, but afterwards appeared to be whitish, and to contain a granular cheesy matter, and during the past two months a black substance has several times been discharged from that ear. The whole meatus appeared black, as if coated with soot. By injections of tepid water a considerable quantity of a substance was removed which consisted partly of black, membranous shreds, partly of a yellowish-white cheesy matter. Under the microscope the black substance exhibited the characteristic

formations of the *aspergillus nigricans*, in full bloom; the cheesy matter proved to be composed of cell-detritus and mycelium fibers, without the sporangia and spores. The thoroughly cleansed wall of the auditory meatus was found to be deprived of the epidermis, and was red and somewhat swollen; the external surface of the membrana tympani was dull and opaque. The watch was not heard even when pressed on the left ear, and the tuning fork placed on the forehead was heard in the right ear only.

April 26, 1876.—Examination made, with the following results: Right ear, watch heard only when pressed against the ear; but after catheterization it was heard at the distance of one-half inch. After two weeks of treatment the right ear could hear the watch at two inches, and the left ear at one-half inch. The left meatus was pencilled over once with a solution of nitrate of silver, thirty grains to the ounce, and olive oil containing ten per cent. of carbolic acid was dropped in three times a day for one week. The external otitis subsided within one week; the fungus did not appear again, nor was there any discovered at the final examination on May 14th.

Reported July 17, 1876.

IV.

CASE OF FIBROID TUMOR OF THE UTERUS.

BY DR. MARY H. THOMPSON.

Miss C. A., aged thirty-four years, seamstress, born in Scotland, entered the hospital for women and children May 31st, 1876, because of uterine hemorrhage. She was rather above medium height, neither spare or corpulent in figure, had light complexion, light brown hair, blue eyes, and sharp features. Her face, lips and tongue were much blanched by hemorrhage. The left arm was paralyzed in the motor nerves so as to hinder action, in the following manner: the hand could not be flexed upon the forearm, nor the forearm upon the arm; but the arm could be flexed upon the chest, the last movement being all that could be made with the arm. I think the nerves of sensation were not paralyzed in any way. The left leg was so cedematous as to seem a fully developed phlegmasia alba dolens.

Apparently there was an intramural fibroid tumor occupying the whole posterior wall of the uterus, which seemed as large as the foetal head at term. The os was open enough to admit the ends of two fingers. The menstrual flow began at about thirteen years of age, and was quite regular until four or five years since, when it became more profuse, without the period being lengthened, until the last, after which it never ceased during the remainder of her life. The sensation in the hand was that of cold and numbness. The leg and foot were at times painful; at others they had a pricking sensation.

The hæmorrhage began about five weeks before she entered the hospital, as a profuse flooding, and came on just before that menstrual period was due. The paralysis of the arm occurred about two weeks after the hæmorrhage began, and the œdema of the leg about eight days after the paralysis. The uterine discharge was at times bright red blood, and at others a dark watery secretion, containing small brownish decomposing clots, and had an exceedingly offensive odor.

The treatment was simply that designed to prevent septicæmia, by carbolyzed vaginal washes, and remedies to support the strength, such as iron, quinine, and good food. Ergot was given in small doses, but was found to be useless. The limb was treated like the puerperal phlegmasiæ.

There was but little change from May 31st to June 7th, when I was called away, and the case passed under the professional care of Prof. John Bartlett, who furnished the following supplementary account:

"After the case of fibroid was entrusted to me, the main symptom was hæmorrhage. The paralysis continued the same to the end; the leg from the time you left, improved and became daily less painful and swollen. Factor of the uterine discharge was a constant symptom, and the very great pain induced in the palsied leg by any manipulation, interfered with the disinfecting of the vagina. The patient had but little appetite, and the amount of food taken was less than it otherwise would have been, because of a difficulty of swallowing, which seemed to depend upon a paralysis of certain muscles concerned in deglutition. From day to day she grew paler

and thinner, and finally death occurred from asthenia, June 13th. The treatment adopted by me was warmth and gentle friction with liniment, to the leg, and such efforts to nourish and sustain as the depressed condition suggested. Neither opium, ergot, the mineral acids or lead were able, permanently, to stop or materially lessen the flow from the uterus. The presence of the evidences of septicæmia, and the putrid nature of the discharge from the womb, deterred me from the use of the tampon, and similar considerations contra-indicated the use of local astringents. I regard the paralysis as due to embolism."

The *post-mortem* appearances were as follows: A partial examination of the body was made eight hours after death. The thoracic and abdominal organs were normal. Those of the pelvis were natural, except the uterus, which was nearly symmetrical, and the body of which was as large as the fetal head at term—the whole body being developed into a true fibro-myoma, including the fundus and both walls down to the cervix, one cornu being a little lower than the other. Its external surface measured as follows: The vertical diameter was four and one-half inches; the transverse diameter, from one cornu to the other, four inches. The anterior wall, on a level with the superior extremity of the internal vertical diameter, from the serous to the mucous surface, measured an inch and a quarter; the posterior wall two inches; and the fundus, from the serous to the mucous surface, one inch and three-quarters. The depth of the cavity, including the cervix, (which latter could not have measured more than one inch,) was two and one-half inches. The mucous surface was studded with the open mouths of blood-vessels, which looked like so many severed arteries, the diameter of the largest of these mouths measuring one-eighth of an inch. These were found in greater abundance in the fundus and internal os uteri.

Two months and a half after the death of the patient, the brain was carefully examined by Drs. H. M. Lyman and D. W. Graham. It was well preserved, had undergone no softening, but was hardened a little by the action of the preserving fluid—alcohol and water. No structural lesions or evidences

of diseased action were found. The efficient cause of the paralysis, therefore, must have been outside the cranium, and consequently must now remain a matter of opinion rather than of certainty.

NOTE BY THE EDITOR.—A microscopic examination of thin sections of the uterine tumor shows that it belongs to the variety known as "small-celled, spindle-celled sarcoma." Its histology is rather rudely illustrated in "Rindfleisch's Pathological Histology," page 138, Fig. 48. "The characteristic textural element," says Rindfleisch (*loc. cit.*), "is a short and narrow spindle-cell, with an elongated, roundish nucleus, with or without nucleoli." These little fusiform cells are woven together so as to form a dense, unyielding mass. The pointed ends are "dove-tailed," so that there are practically no interfibrillar spaces. There does not seem to be any intercellular substance, except that occasionally one is met with in which a finely granular deposit in very small quantity can be seen between the larger portions of the cells.

In structure the small spindle-celled sarcomas present a very striking analogy to the inflammatory new formations; and the resemblance is strengthened by the peculiar degenerations to which these tumors are liable. Again, they are far less likely to undergo cancerous metamorphosis than the other forms of sarcoma. These several facts have led some pathologists to believe that the small spindle-celled sarcomas are, sometimes at least, of inflammatory origin; that a long-continued chronic inflammation may result in either a local or diffused hyperplasia of tissue elements.

In Dr. Thompson's case the question may fairly be asked whether the general enlargement of the uterus was not purely a hyperplasia involving the muscular tissue of all parts of the organ.

Reported June 19, 1876.

V.

A CASE OF HYDATIDIFORM DEGENERATION OF THE OVUM IN A TWIN PREGNANCY.

BY DR. NORMAN BRIDGE, FOR DR. R. M. LACKEY, OF MAYWOOD, ILL.

The patient in this case was a German about thirty-five

years of age. She had an angular curvature of the spine from disease of the vertebrae in childhood, but had nevertheless always enjoyed fair health. She had been pregnant once before the present experience, but had aborted at the eighth week. She had been married to her present—the second—husband but nine months. Dr. Lackey was called to her hurriedly, to find her apparently in the ninth month of uterogestation and bleeding freely. The patient stated that for three months previous to his being called she had frequent profuse hemorrhage, for which she was treated by a homoeopathic doctor. She supposed herself to be only six months advanced in pregnancy. She had been flowing constantly for three days, and had feeble labor pains. She “was much exhausted from loss of blood and nervous irritation.”

On digital examination the os uteri was found only slightly dilated, barely enough to admit the index finger. The finger encountered a “soft, lumpy mass that occupied the lower portion of the cavity of the uterus;” through this “no part of a fetus could be detected.” Dr. Lackey wisely judged that the only means of saving the patient’s life was to evacuate the uterus of its contents and secure contractions. Accordingly he administered ergot freely, and proceeded to dilate the os with his fingers. As soon as this was accomplished he grasped a handful of the soft mass and brought it away. It was composed of cysts varying in size from that of a pea to that of a pigeon’s egg, and filled with a fluid resembling the amniotic liquor. “Each had a pedicle, and was attached to a fibrous cord or stem so as to resemble a cluster of grapes.” This *stem* was the only part that was attached to the uterine wall. The specimen, to all appearance, was one of hydatidiform degeneration of the ovum.

Dr. L. continued to bring the mass away in handfuls, until with the last shred it measured over three pints. He discovered in the course of this operation that the uterus also contained what appeared to be a normal bag of water containing a fetus. He promptly ruptured the bag, when “fully the ordinary amount of water escaped.” He at once found the feet, brought them down, and delivered the fetus. It was

apparently six months old, and had evidently been dead several days. The placenta was removed manually; it was normal in appearance. Not until it was removed did the uterus make the slightest effort at contraction; it then contracted sufficiently to stop further hemorrhage. "The patient was prostrated and exsanguinated after the operation, but gained rapidly and made a fair recovery." Dr. Lackey declares that there was not the slightest connection between the cysts and the placenta, membranes, or any of the normal contents of the womb." The attachment of the cystic mass to the uterine wall was a sufficient distance from the border of the placenta to make the doctor positive in his assertion that the two were in no way connected. Furthermore, he examined the placenta carefully after its delivery, to discover any possible point of connection with the degenerate ovum, and could find none.

This specimen does not differ from any specimen of a cystic degeneration of the ovum. There is nothing peculiar in the crude appearances of the cysts; but the case is interesting and peculiar, if not unique, in that there was evidently an ordinary twin impregnation, one ovum of which soon underwent the well-known cystic degeneration, the other going on in a normal course until the pressure of a large foreign body growing by its side, and the loss of blood resulting from the abnormal condition, led to its death.

The history of this case is made up from notes which Dr. Lackey has kindly furnished.

NOTE.—The specimen presented to the Society by Dr. Lackey consisted of a mass of cysts large enough to about half fill a morphine bottle. They varied greatly in size, the smallest being no larger than a homeopathic pellet, the largest about the size of a common marble. They were all balloon shaped, the small end of the balloon terminating in a long delicate pedicle, by which they were tethered in groups of ten to twenty. After being immersed in glycerine, alcohol and water a few days, the cysts became beautifully transparent, so that their minute structure could be easily studied. The cyst walls were composed of simple membrane, lined with a layer of rather small pavement epithelium-cells. The fluid contents

consisted of a clear serum, in which a few granular corpuscles floated, closely resembling the "gorged granules" found in ovarian fluids, except that they were smaller. A careful search was made for the hooklets of echinococci, but with only negative results. True hydatids within the uterus appear to be exceedingly rare, Rokitansky never having seen but a single case in which true acephalocysts were present, and that case still standing alone (?) upon the records. Dr. Lackey's case was one of true hydatidiform degeneration of the villi of the chorion, a change which is said not to occur after the third month of gestation. The appearance of a group of these cysts, and their anatomical relations to the chorion, is admirably shown by an illustration in "Hewitt's Diseases of Women," page 86, Fig. 3.

I. N. D.

Reported August 21, 1876.

VI.

SUDDEN DEATH FROM OCCLUSION OF THE LARYNX BY A
FRAGMENT OF COAL.

BY DR. I. N. DANFORTH.

In the month of June, 1871, I was urgently summoned to see a boy who was said to be "choking to death." Upon arriving at the place indicated, which was but a few blocks from my residence, the boy was dead. From his parents I obtained the following history of the case: The boy was eight years old; he had always been strong, healthy and active; he had no cough or tendency to any difficulty of breathing; indeed, he had been foremost in games and sports among the children of his neighborhood. Not more than half an hour before his death he was sent on an errand to the neighboring grocery, and it was noticed that he carried a "blow gun," which happened to be the toy most in favor at that particular time. A few moments later he rushed into the house, his face distorted by agony and fright; he managed to utter in a hoarse whisper, "Mother, I'm choking," and immediately fell upon the floor. Two or three desperate but ineffectual efforts at inspiration followed, and he was dead. On the following morning I made an examination of the thorax and cervical

region, assisted by Drs. A. H. Foster and Norman Bridge. The lungs were perfectly healthy, so far as their own special structure was concerned, but they were congested to the last degree. The right side of the heart was distended by a soft clot of black blood; the left side was empty and almost spasmodically contracted. No hæmorrhage was found in any part of the chest, although it is said to be common in such cases, especially in the pleural and pericardial cavities. The trachea was intensely congested, and contained a large quantity of mucus, but no blood. In all other respects it was perfectly healthy. Upon removing the larynx and looking into it from above, a glistening black body was seen. When the larynx was opened, a fragment of hard coal was found firmly impacted in the laryngeal cavity, below the inferior or true vocal cords. The muscles of the larynx were in a state of intense contraction; in fact, so pronounced was this, that the foreign body could not be moved by means of a pair of dressing forceps, until the larynx was laid open. The fragment was composed of ordinary anthracite coal, of an irregularly cubical form, and presenting several sharp, protruding angles. It measured three-eighths of an inch in its smallest, by almost half an inch in its largest diameter, and weighed six grains. It seems almost incredible that a body so large and irregular could elude the never-sleeping vigilance of the epiglottis, and find its way through the rima-glottidis of a boy so young. A question of great practical interest presented itself in connection with the case, namely: How came the fragment of coal in the child's larynx. As I have already stated, when he went upon his last errand he carried a "blow gun"—apparently an innocent toy, but in this instance an instrument of death. The "blow gun" is a light metallic (usually tin) tube, fifteen or twenty inches long, and about half an inch in diameter. It is a kind of air gun, and is used in this way: A pea or bean is placed in the tube two or three inches from the end, the lungs are then inflated by a forced inspiration, the lips applied closely around the *opposite* end of the tube, and the inspired air is forcibly expelled, or blown through it; hence the name "blow gun." Of course the pea, bean, or other "projectile,"

is shot from the distal end of the tube with considerable force by the current of air, and may be so directed as to hit a target which is only a few feet distant. The danger of the "blow gun" consists in this: that a forced inspiration may possibly "draw" the projectile (whatever it may be) into the air passages, if the proximal end of the gun be held opposite the mouth when the act of inspiration is performed. Any one who has watched a child when he forcibly inflates his lungs, will readily understand this: the forced inspiration of a child is only comparable to the same act in *another* child. It was probably precisely in this manner that the accident I have been describing occurred. The child reached the grocery safely, did his errand, and started for home. On the way he passed a coal office, in front of which several samples stood in show-boxes; from one of these he took a little fragment and placed it in his blow gun, then holding the open end of the gun on a level with his open mouth, he forcibly inflated his lungs, and in so doing drew a rapid current of air through the gun. This column of air swept the piece of coal through the gun tube and into the child's larynx.

Reported September 21, 1876.

Editorial.

THE CHICAGO BOTANICAL GARDEN.

Australia, which was peopled in the year 1870 by less than one million of inhabitants, can point to five botanical gardens established within its borders. There are five also in South America. That in Calcutta is more than one hundred years old, and covers two hundred and sixty acres of ground. Java possesses in the Buitenzorg, probably the largest garden in the world, as it includes two hundred and seventy-two acres of ground, and furnishes sites for plant culture at elevations from 4,500 to 10,000 feet above the level of the sea. Up to within a recent date there was but one botanical garden in North

America—that connected with the University of Harvard. We say but one, for it is well known that the Government gardens at Washington subserve chiefly the purpose of providing bouquets for members of Congress, while that at St. Louis—small, popular and showy—is scarcely adapted to the study of botanical science. The Cambridge garden, now seventy-five years old, is completely filled with collections obtained from the botanists of the United States; but its chief usefulness has been to enable Professor Gray to advance his botanical researches. It covers ten acres of ground, and to this space has been recently added the ground for an arboretum.

The Chicago Botanical Garden has been called into existence so noiselessly, and has accomplished its work thus far so unpretentiously, that there are many who will first learn of its existence from a perusal of these pages. Curiously enough, the largest number of those who are already familiar with its aim and labors, are residents in foreign lands.

The Chicago garden was created by the action of the South Park Commissioners, who organized a Board of Management, consisting of Judge H. N. Hibbard, Gov. Wm. Bross, and Messrs. E. H. Sargent and Albert E. Ebert. Prof. H. H. Babcock, the eminent Chicago botanist, was appointed Director. The garden is located in the southeast corner of the northern and western of the two south parks. Fifteen acres are allotted for the garden proper, which now contain plants arranged in their natural order; and sixty additional adjacent acres have been assured for further use. Three-fourths of this latter space will be occupied as an arboretum, in which the pines, oaks, maples, etc., will be separately arranged; and special provision will be made for medicinal plants, which will be also systematically grouped.

It is safe to say that a botanical garden was never before established which has, in a similar space of time, accomplished the results which the management now actually exhibit. Since the date of organization, on the 10th of April, 1875, 8,000 packets of seeds and living plants have been received here from England, France, Germany, Russia, Holland, Italy, Austria, Hungary, Java, Australia, Chili, South Africa (Cape of Good

Hope), Calcutta, and various portions of the United States, the latter chiefly from the garden at Cambridge. These represent about 6,000 living species. During this same time, also, about 2,000 packets of living plants and seeds have been exported to various parts of the world, principally in exchange to the countries mentioned above. It may be added that these exchanges have been eagerly sought for abroad, and that nothing could exceed the cordial and even enthusiastic support accorded to the Chicago enterprise, by strangers who have proved themselves friends in these remote quarters of the globe. As an illustration of this fact, it may be mentioned that it has actually been found to be more difficult to obtain collections from various parts of this country than from Java and South Africa.

To-day the four houses, heated by warm water, and so arranged that the temperature in each may be adjusted to a degree, are crowded to their utmost capacity. Many tropical plants have reached the glass roofs, and turned downward in accordance with the demands of a vigorous growth. Specimens of the *Eucalyptus Globulus*, grown from Australian seed twelve months ago, are now fully twelve feet in height. Among the medicinal plants to be seen, there are several varieties of hyosciamus, aconite and arnica.

This success has been largely due to the indefatigable labors of Prof. Babcock, who, prior to the inauguration of the scheme, dispatched 15,000 herbaceous specimens to Java, Belgium, Calcutta, Australia, Sicily and Chili; and the garden was not slow in reaping the reward of this generous insemination. The Board of Management were also fortunate in securing the services of a skilled gardener, who had served five years in the botanical garden at Kew, and had also been for five years in charge of the garden at Belfast, in Ireland.

A register of visitors, kept upon the grounds, records at present 327 names, representing a large number of gentlemen from outside of the city—those from Boston, Philadelphia, New York and Washington preponderating.

Our object in thus prominently calling attention to the Chicago garden is to aid in furthering the judicious aims of

the Board of Managers. The ultimate and permanent success of their scheme will depend largely upon the success which they achieve in awaking not only a popular interest in the botanical garden, which is eminently desirable, but also in securing the moral support and encouragement of men of culture and science in the city and its environs. Such success will involve the development, among the masses of our people, of a taste for horticulture and arboriculture, as well as of a tendency to seek that highest form of recreation from the cares of business, which is afforded by the direction of the mind to the practical study of natural science. In England and elsewhere, it is not rare to find clergymen, barristers and gentlemen eminent in various professions and stations of life, resorting to this class of studies as a source of recreation and amusement, and often they attain a truly remarkable degree of proficiency in their favorite science. Such a state of society will obtain more and more in this country, as capital accumulates its surplus, and the means of generous living are placed at the disposal of men in the middle ranks of life. In the territory around Chicago—a city destined without doubt to be the metropolis of a continent, its feet resting on a soil which is a treasure house of vegetable and mineral wealth, its arms reaching out to the embrace of an empire of unparalleled productive resources—such conditions as those described will inevitably arrive.

Meantime, we believe that we repeat the sentiment of the medical profession of our city in expressing the hope, that the South Park Commissioners will continue to support and extend the work of the Chicago Botanical Garden, in the liberal and far-seeing spirit with which it has been projected and thus far developed.

Hospitals.

SURGICAL DEPARTMENT, COUNTY HOSPITAL.

Service of DR. POWELL.

May 2, 1876. Dr. Powell presented and made remarks on the following cases:

1. *Scrofulous Abscess.*

A small spare man, middle aged. A lump the size of a child's head just below and external to the scapula; several weeks in coming. In the absence of all inflammatory symptoms there is good reason to conclude that it is simply a collection of matter there. Such abscesses are frequently called cold abscesses. Ill-clothed, and poorly fed people may have such collections. There is no need of a large opening. It is best simply to tap it and run a drainage tube through. It should occasionally be washed with some stimulating or disinfecting solution. Punctured, a stream of yellowish pus spouted forth like a fountain, half filling a quart basin.

2. *Encephaloid Cancer of the Left Thumb.*

An emaciated cachectic man, middle aged, a printer. His thumb got sore eighteen months ago. After trying everything, he had it cut off. It got well, but after six months the disease recurred. It is now as large as a man's fist—a pul-taceous rosy mass. We should remember that if a tumor or any sort of sore recurs after having been removed, no matter how, we have something serious. Cancers recur. No non-malignant growth presents an appearance like that. The odor is quite characteristic; we may recognize it anywhere. The sooner that is removed the better; for cancer cells are being taken up; they will be carried on further and further until we shall have the entire system poisoned. The operation should

go far away from the disease; then it will recur soon enough. Fortunately the glands in the axilla are not yet involved. The operation will be made just above the elbow. Esmarch's band must not be put on too low, lest we force up ill-conditioned pus.

1. *Fracture of Neck of Femur.*

May 5. An old man aged sixty-nine, just came in. He was injured yesterday by a fall from a sidewalk not more than three feet. He was picked up and carried home. Dr. P. proceeded to examine with reference to the nature of the injury, and first called attention to the expression of the limb. It was apparently a little bit shortened; there was a little fullness of the hip, and the foot was slightly everted. We are able to exclude all possible dislocations by just observing the limb. From the fact of the age, and his falling as he did, we are to suspect a fracture of the neck, for these fractures almost always occur in persons past sixty. Some surgeons say they can diagnose between fractures of the neck of the femur without and within the point of insertion of the capsular ligament. Nélaton used to say he would wait till the post-mortem. Sir Astley Cooper said he could not tell. We may exclude fracture of the shaft; beyond that it is, to say the least, a matter of extreme nicety. It will be well to speak with reserve as to the result in all these cases; for a fracture within the ligament is extremely inapt to unite. Those without, those partly without and partly within, and impacted fractures are disposed to unite. It is well always to say that probably it will not unite. It will be best to anaesthetize our patient. He will forever blame us for a bad result, and we shall forever have to face it. Dr. P. urged upon the class that they should know a good deal about fractures, saying that scarcely a month elapsed that some one did not come into the city with evidence of bad treatment or bad diagnosis. Measured from the ilium to the inner ankle, there was found to be half an inch of shortening. When the foot was taken in hand, there was pain produced in the hip and knee. The tro-

chanter rotates. There was a slight grating sound detected. Dr. P. remarked that it was not necessary to go any further. The fracture was within the trochanter. The treatment in either case should be the same. But it should be remembered that any injury about the hip in an aged person, as a sprain, might result in interstitial absorption of the neck of the bone. The head would then seem to rest on the shaft. So that no matter how great the caution, the result of even slight injuries may simulate the result of a fracture. Simply apply extension. The ordinary adhesive plaster is not so good as that spread on Canton flannel. Afterward a webbing support will be put around the hip and a splint to roll the thigh inward. Twelve weeks will be required to remove these supports.

2. *Fracture of the Forearm, Middle Third, Caused by the Kick of a Horse.*

Laboring man, thirty. This fracture is as troublesome as any, except perhaps Colles' fracture, for there is so likely to result loss of pronation and supination. There is frequently thrown out a bony nodule between the bones. No surgeon can prevent that. In all such fractures of the forearm we simply want two splints, and we adapt them by making them a little wider than the arm. Set aside scientific or medical education and simply apply mechanical common sense. We want a splint that takes hold of the elbow and hand. The splints want to be exceedingly well padded with sheet batting, or what is better, folded strips from an old sheet, made to come well over all the corners. It is advisable to smear a little starch over it, if the patient lives at a distance, or is a little child. If there should be a tendency of either end of the bone to fall out of place, a little compress is required. The setting is simply to take hold and make it as near like the other limb as possible. Bandage lightly. At the end of two or three days look at it. Thenceforth if there is no deformity let it alone. Better leave the dressing on for six weeks.

1. *Fracture of Lower End of the Radius.*

May 9. An old lady fell on the stairs and struck the palm

of her hand. The radial border of the forearm is seen to be shortened, drawing the hand to one side, and giving a prominence to the ulna. In an old person such a fall will generally produce a fracture of the radius. In a young person it will cause either a fracture or a dislocation of the elbow. We have a Colles' fracture. These fractures are exceedingly interesting from the difficulty of treatment. We are liable to have more or less deformity. Dress the hand just as the arm was dressed (May 5th). But there must be a large pad in front or there will be a projection forward. A little extension and moulding is all the setting it can receive. She will have to wear the splints five or six weeks, but she will come back a week from to-day. If any thing happens to prevent her return on that day, we shall have to send for her, for these cases must not be neglected, lest they fall into some unscrupulous hands and we be blamed for the deformity. There are more trials for malpractice with this and injuries of the elbow, than all other causes put together.

2. *Fracture of Forearm, dressed four days ago.*

Dr. P. remarked that he would remove the dressing to see if it was all right, although it could hardly be necessary yet. The position was as good as it could be; but a little compress might be needed on the outer surface of the arm, for there appeared to be a slight bowing upward. The compresses should be made of cloth, for that does not yield so much as batting, which may be used to line the splint.

3. *Injury of the Elbow.*

(April 25. Dr. Bogue.) Dressed at first with adhesive strips and pully, the weight of a brick being added. During the hurricane which unroofed the hospital the evening of May 6th, he betook himself to flight, carrying the brick with him. A good reason for not dressing these cases in the straight position is that the biceps is made taut. Only in fractures of the olecranon process is it admissible. Only fourteen days have elapsed since this injury, but it is fair to presume that

the swelled muscles will act as splints. Hereafter all dressings will be left off. The arm will be bent and placed in a sling, and movement will be required each day to preserve as good a joint as possible.

4. *Paralysis of the Extensor Muscles of the Forearm and Hand following Convalescence from Fracture of the Humerus Middle Third.*

This case came in March 3d. It ordinarily takes longer for convalescence to become complete than for the bone to unite. The treatment here is passive motion effected by an india rubber cord attached at one end to the arm and having a loop at the other for the insertion of the fingers. He is instructed to resist the tension of the band. The paralyzed muscles are regaining strength by a kind of Swedish movement cure.

NOTES OF CASES IN MERCY HOSPITAL.

Service of PROF. E. ANDREWS.

1. *Strangulated Hernia.*

Operation. The patient, a man aged thirty-five years, was admitted for mechanical obstruction of the bowels, which had existed fifty hours. A small inguinal tumor existed, but so insignificant that it was doubted whether it was the true cause of obstruction. Ether having been given, efforts were made to reduce it by taxis, but failed, as a similar attempt by Dr. W. Blanchard had done before admission. Prof. Andrews therefore proceeded to perform herniotomy, when a very small but tightly constricted portion of intestine was found, blacker in color than the average of strangulated intestines, but having no odor or feeling of grangrene, and apparently containing little or nothing which our aspirator could have withdrawn. The gut was probably forced through the ring in an empty state by some sudden and powerful action of the abdominal muscles. The stricture being cut, the intestine was returned, and the wound closed, and the patient made a rapid recovery. It is remarkable that this operation in Chi-

cago has a much greater success than has been experienced elsewhere. Out of thirty-four cases only eight died, equal to twenty-four per cent., while in the Atlantic cities, and in Europe, the mortality is about fifty-four per cent. of all the cases. In the hospitals of Paris the mortality attains the frightful figure of sixty-eight per cent., which is probably due to the fact that septic diseases are less guarded against there, than in any other great hospitals in the world. In Chicago the patients rarely delay long in sending for help. With the usual wide-awake tendencies of a new city, they call a surgeon at once, and if an operation is needed it is done immediately at the house, so that these cases rarely appear in the hospitals. This promptness is one of the great causes of safety, as delay adds hourly to the danger.

2. *Colotomy.*

The patient, a woman, aged about thirty-six, was admitted for cancer high up in the rectum. The growth of the tumor had obstructed the gut so as to render defecation very difficult. Ether was given, and an attempt was made to rupture the cancerous stricture, but owing to its high location it could not be done with any force which it was safe to use. A week or two now elapsed, when it was found that the progress of the disease had rendered the obstruction nearly total. The abdomen was greatly distended, and the patient seemed rapidly failing from the effects of the obstruction. She was again anesthetized, placed face downwards, with the abdomen across a large pillow. The colon was then exposed in the left lumbar region, behind the peritoneum by the usual incisions. The gut was emptied of its gas by a trocar, and then opened and stitched to the skin. No evil effect followed, and the relief from obstruction was complete. The cancer, of course, is not cured, but the patient is in comparative comfort, and does not experience any of the horrible inconveniences from the artificial anus which some authors describe. The orifice is prevented from leakage of gas and other contents by a water-proof pad. Gross discourages the operation, and thinks it better to let the patient die. Bryant, of England, on the

other hand, says that the patients are surprisingly comfortable, and enjoy life well — a remarkable case of contradiction of opinion between two men eminent for sound judgment. The published statistics fail to show what is the real danger of the operation, because the compilers have included in one mass the patients who died of the operation itself and those who died afterwards of the cancers for which many of the operations were performed. This is a blunder which shows how infantile the important science of statistics still is. The operation is reckoned among the more difficult ones of surgery, but it is by no means overwhelmingly so, and when skillfully performed, is probably not very dangerous.

3. *Fracture of the Spine.*

Recovery. This patient received a fall, fracturing the dorsal region of the spine, and causing a visible projection at the point of injury. Fortunately the displacement was not sufficient to compress the spinal cord, and no paralysis occurred. He is recovering simply by being placed on his back in bed. Occasionally we see these cases of spinal fracture without injury to the cord. When they occur the patient usually recovers with little more trouble than if a limb were broken.

4. *Fracture of the Spine with Injury to the Cord. Death.*

This patient, aged about fifty, came in with fracture of the upper half of the dorsal region, total paralysis of the whole body below, and also fracture of the right thigh. Within a week he recovered partial sensation to the touch in the lower extremities, but not the motive power. Apparently the posterior columns of the cord were not entirely destroyed. He was placed on an air bed with extension on the broken thigh. Death occurred from general failure of health during the fourth week. There was no commencement of union in the fractured femur.

5. *Operation for Angular Deformity after Fracture.*

This patient came in with the upper third of the leg bent at an angle of twenty degrees in consequence of a former

fracture. On being anæsthetized the union was too firm to yield to any reasonable force. A wedged-shaped piece was therefore sawn out of the tibia, and the fibula sawn across. The limb was then placed in a straight position and is now well advanced toward recovery.

6. *Abscess in the Medulla of the Femur; Consequent Caries of the Knee. Amputation of the Thigh.*

This patient entered with an inflamed knee, and a fistula discharging matter just above it. No dead bone could be reached by the probe. The knee rapidly became worse, and on being laid open was found carious. Being etherized, amputation was performed above the knee. On sawing across the shaft of the femur, the medullary cavity was found filled with pus, which extended five inches above the knee, where a growth of solid bone plugged the cavity and prevented effusion upward. Another section was taken from the femur in order to remove the whole of the disease. The outlet of the cavity was in front of the femur opposite the upper edge of the patella, from which point the pus burrowed into the joint. The patient is making a good recovery.

7. *Compound Dislocation of the Ankle. Resection of the Joint.*

Accidental violence drove the lower end of the tibia through the skin on the inner side, and the attending physician found it impossible to maintain a reduction. After some weeks the patient entered hospital with the end of the tibia still protruding from the wound. Ether was given, and the end of the bone exsected, when it was easily returned and retained. After a rather prolonged stay he was discharged, well advanced towards recovery.

Book Reviews.

[NOTE.—All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD, by *J. Lewis Smith, M.D.*, Physician to the New York Infants' Hospital; Physician to the Catholic Foundling Asylum; Physician to the Protestant Infant Asylum; Clinical Lecturer Bellevue Hospital Medical College, etc., etc. Third edition—enlarged and thoroughly revised. Henry C. Lea. Philadelphia, 1876.

In 1869 the first edition of this book made its appearance. Although incomplete in many respects at the time, several of the more important diseases of children being unnoticed, it was well received by the profession. Prof. Smith's writings have been largely based "on clinical observations and the inspection of the cadaver." His connection with a number of children's hospitals and asylums have given him superior advantages in this respect, and some of the articles in his first edition were exhaustive; they have not been improved on by any author since.

Three years later a second edition was published, and the volume made more complete by the description of nearly twenty additional diseases, among which may be named diseases incidental to birth, rachitis, tuberculosis, scrofula, intermittent, remittent and typhoid fevers, chorea, paralysis, etc., etc. Many new formulæ were also introduced. And now, scarcely six years since the book first saw the light, a third edition, "enlarged and thoroughly revised," comes to us. Some of the old articles have been rewritten, and a few diseases, among which we notice rætheln and cerebro-spinal fever, considered for the first time.

While it will be our purpose in this brief review to notice more particularly the newly described diseases, we can hardly refrain from speaking of the general plan of the work, a plan

which has been adhered to throughout all the editions, and making an occasional comment on the more important subjects.

Part I. has chapters on the following subjects: 1, Infancy and Childhood; 2, Care of the Mother in Pregnancy; 3, Mortality of Early Life; 4, Lactation; 5, Selection of a Wet Nurse; 6, Course of Lactation — Weaning; 7, Artificial Feeding; 8, Baths — Clothing; 9, Accidents, etc., Incident to Birth and Detachment of the Cord; 10, Conjunctivitis Neonatorum; 11, Diseases of the Umbilicus; 12, Umbilical Hæmorrhage; 13, Diagnosis of Infantile Diseases.

It is not customary, we believe, for authors to include many of these subjects in works on diseases of children, but, put in Prof. Smith's style they are exceedingly valuable. His facts and rules in reference to lactation; his remarks in regard to modification of the milk in consequence of diet — from retention in the breast, by age, mental depression, catamenial function and pregnancy, are of great importance to every young practitioner.

Any brief consideration of so important a subject as artificial feeding must necessarily be unsatisfactory, but a very large amount of needful information has been crowded into the five pages devoted to this subject. The author agrees with Prof. Jacobi that those kinds of food which consist largely of starch are suitable for young babies, and the experiments of Dr. Korowin, of St. Petersburg, comparing the action of the pancreas and parotids whose secretion chiefly digests starchy food, have been repeated by Dr. Smith. It seems to be fairly established that but very small provision is made in the young infant for changing starch into sugar, and that the general belief of mothers, nurses and some physicians, where interference with the normal food of babies is demanded, that potatoe, bread crumbs, or any other substance containing starch, should be used either alone or with milk, is erroneous. Such food remains unchanged, it cannot be digested, it is good for nothing but to produce colic.

Section 1, Part II., is taken up with the consideration of diathetic diseases, four of which are mentioned, viz.: rachitis, scrofula, tuberculosis and syphilis. The second named disease

is defined as characterized by increased vulnerability of the tissues, with a tendency to low grades of inflammation and hyperplasia of the lymphatics.

Eruptive fevers are considered under the next section.

The means by which scarlatina may be transmitted, and the extraordinary tenacity or permanence of the virus, are spoken of at considerable length. Neither of these subjects has received the attention, it appears to us, which its importance demands. Unless we doubt the truthfulness of such observers as Murchison, Louis, Thomas, Trousseau, and our author, it must be evident to all, that physicians, nurses and attendants may, and frequently do, carry the contagion. Mason Good believes that a box of toys was, in one case, the means of transportation; and one of the authorities named above is confident that a letter and a lock of hair have been carriers of this dreadful poison. This contagion also, whatever it is, adheres so firmly to ordinary material, and resists with such absolute success the common exposure to air and the usual means of purification and cleanliness, that unusual care should be exercised if we expect to destroy its vitality. In the practice of Dr. Kearney Rogers, infection followed a visit to the apartments, three and a half months after the disappearance of the disease in other patients. Richardson believes that the contagion became so fixed in the thatch of a house that infection followed more than five months after the occurrence of the first case, and Hildenbrand's coat is said to have retained the contagiousness one and a half years.

In regard to the treatment, especially of broncho pneumonia of measles, our author does not speak of what the Germans declare the most advantageous method, *i. e.*, hydrotherapeutics. In malignant forms of scarlet fever, however, with a temperature of 105° or higher, the antipyretic virtue of quinine is acknowledged and its employment advised. The cold affusions recommended by Trousseau, and whose testimony is that he never administered them without deriving some benefit, are regarded by Prof. Smith as liable to produce shock in young children, and perhaps other important and unfavorable complications.

The disease *rœtheln* is rare, perhaps new in this country. An epidemic of this peculiar malady has recently prevailed in New York city, and we are given the author's experience in it. A most interesting diagnostic syllabus of this disease, scarlet fever and measles, by one of the associate editors of this journal, having appeared in the April number, it seems superfluous to say more in regard to this affection. Among the authorities cited, the name of Prof. J. L. Smith appears frequently.

The most important disease considered in the next section, the *non-eruptive contagious* and embracing diphtheria, pertussis and parotiditis, is the first named. The author remarks in his preface that diphtheria has become a disease of great importance in this country, and * * * the most fatal malady of childhood in the localities where it prevails. Much study has evidently been given to this subject by Prof. Smith, and the article almost entirely rewritten. Great research has been made during the last few years concerning the nature of diphtheria, its cause, etc., etc. Not only have very careful clinical inquiries been made, but the microscope has been called to the aid of our investigators. The relation of *vegetable organisms to diphtheria* is now a very important question. Oertel claims that vegetable parasites throng all diphtheritic membranes, incisions, ulcers, etc.; fill the blood and lymph vessels; appear heaped up in the uriniferous tubules, inducing, in a way he explains, septicæmia and that long train of secondary affections so frightful in their near and remote results. The same author quotes Eberth — "without micrococci there can be no diphtheria." Oertel also claims that diphtheria is first always a *local* and then a *general* disease.

Prof. Smith, with his friend, Dr. Heitzmann, "a most excellent microscopist," have lately tried to verify the facts obtained by the German microscopists and pathologists. They find the bacteria, but in *non-diphtheritic* deposit as well as in true diphtheritic exudation. He says, page 221: "The micrococcus in the inflammatory product upon the fauces certainly does not indicate disease of a specific nature," and he believes that it is possible that Oertel and his advocates have mistaken

a consequence for a cause. The treatment advised is not materially different from that which has given the profession in the West the best results, viz.: Tr. ferri chl., quinia, chlorate potass, internally; carbolic acid, liq. ferri subsulph., etc., as local applications.

In regard to the use of quinia in whooping cough, the author remarks that it has been prescribed for a considerable number of children in the Catholic Foundling Asylum, without diminishing materially the severity of the cough. It will be remembered that Dr. B. F. Dawson advocates very strongly the value of quinia in *curing* the *whooping* of this disease.

Of the general diseases mentioned in section four, and including malarial, typhoid and cerebro-spinal fevers, rheumatism and erysipelas, nothing special demands notice. The author believes, with other writers, that rheumatism is not as infrequent among children as commonly supposed. Many affections called by the people "growing pains," etc., have been rheumatic, and oftentimes are followed with cardiac complications. "The disease at this age (in infants) may be so obscure, or latent, as to be overlooked even by good diagnosticians."—p. 307. If the article had been written in June of the current year, the author might have mentioned salicylic acid in the treatment. It appears to be of decided value in this disease.

Part III. occupies 147 pages of the book, and is devoted to diseases of the cerebro-spinal system. All the diseases usually included are here well described—the article on tetanus being particularly elaborate. Hydrate of chloral seems to be the remedy preferable, one physician stating that he has saved fifty per cent. since commencing its use. The tr. of calabar bean has also been praised by recent authors.

The next section, devoted to diseases of the respiratory organs, is exceedingly clear and very instructive. The article on pneumonia is especially good. The author prefers aconite to control the action of the heart, and believes it less depressing than veratrum viride. We have occasionally seen this effect from the veratrum, but when its action is closely watched

by some one competent to count the pulse, it has given us the happiest results.

The pathological results of dentition are pointed out in the section given to diseases of the digestive apparatus, and the moderate use of the gum lancet suggested. Under the head of Indigestion, and when speaking of pepsin, he says: "Boudault's, from Paris, has been most used in this country, but the American preparations are probably equally good." When he prescribes it, he gives to an infant of three months, three grains combined with the same amount of subnitrate of bismuth. Query: Is pulv. *creb.* comp. c. opio a preparation peculiar to the East, or have we found an error?—p. 631, line 40.

The term cholera infantum is employed by our author "to designate only that form of infantile diarrhœa in which there are frequent watery stools, accompanied by vomiting, great elevation of temperature, and rapid and great emaciation." We earnestly commend this definition to a class of gentlemen in our midst professedly practicing a partial system of medicine, who always have an immense number of cases of cholera infantum, and none of simple diarrhœa and entero-colitis.

The consideration of cyanosis, and a few of the more important skin diseases, bring us to the end of the volume.

In conclusion, we have nothing but good words for Prof. J. Lewis Smith's book. Taking everything into consideration, we believe the present edition is the best work on children's diseases in the English language. C. W. E.

STATISTICS, MEDICAL AND ANTHROPOLOGICAL, OF THE PROVOST-MARSHAL-GENERAL'S BUREAU, DERIVED FROM RECORDS OF THE EXAMINATION for Military Service in the Armies of the United States, during the late War of the Rebellion, of one million Recruits, Drafted Men, Substitutes, and Enrolled Men. Compiled under the direction of the Secretary of War, by I. H. Baxter, A.M., M.D., Colonel and Chief Medical Purveyor United States Army, late Chief Medical officer of the Provost-Marshall-General's Bureau. Government Printing Office.

These two large quarto volumes have been prepared under the supervision of Dr. I. H. Baxter, and contain so much

valuable matter in so condensed a form that a very elaborate review would be necessary to express even generally the results of his analysis.

For the first two years of the war the enlistments were under the control of State authorities, but, this method proving inadequate, Congress, March 3d, 1863, created the Provost Marshal-General's Bureau, and ordered an enrollment of all persons liable to military duty. During the existence of this bureau four drafts were made, which furnished records of 605,045 examinations. The number excepted was 155,780, or a ratio of 257.39 per thousand. During the same period, 225,000 volunteers and 80,000 substitutes were examined; of the former a ratio of 221.63, and of the latter 264.17 per thousand were rejected. The plan of giving millesimal ratios is continued throughout the work, and makes the records easy of comprehension and comparison one with another.

The first volume opens with an introductory chapter, in which are detailed the recruiting regulations of the United States since the formation of the army, and those now in force in various foreign countries. The importance of comparing these regulations, and adopting the most stringent, is shown by the fact that in time of peace 7 per cent. of the fighting men of the English army are in the hospital, while in the peninsular war there were 21 per cent., and in the Crimean war 39 per cent. During our own war from 7 to 17 per cent., were incapacitated from service.

The last section of this chapter is devoted to anthropometry, and besides containing an excellent bibliography, has an extensive review of the whole subject. The total number of men credited on the several calls made by the President from the beginning to the end of the war, and put into actual service, was 2,762,401, and when the total rejected men is added, some idea may be formed of the opportunity afforded for the measurement and examination of the human body. The method of adopting some one portion of the human body as a modulus, and determining its remaining proportions by their supposed relation to this unit, is found to be almost invariably erroneous. But these variations arrange themselves in groups which follow

numerically the law known as the law of the co-efficients of the binomial. The conclusions arrived at by the most eminent investigators in this branch of science are as follows:

1st. There is a perfect form or type of man, and the tendency of the race is to attain this type.

2d. The order of growth is regular towards this type.

3d. The variations follow a definite law, the law of accidental causes.

4th. The line formed by these variations is the curve known as the binomial.

A review of the tabular statements contained in the second volume follows, and the elementary conditions which enter into comparison with each other are: height, girth of chest, expansion of chest, age, weight, complexion, nativity, social condition and locality. The comparisons of each of these with the others, and a consideration of their relation to disease, may be stated as the scope of this report. The nomenclature of diseases adopted by the Royal College of Physicians and Surgeons in 1869, is employed with some modifications.

To determine the mean national stature, it is necessary first to decide as accurately as possible when man attains his full height; and the statistical results from over 190,000 examinations, showing the relation of height, girth and expansion of chest to age, indicate that the white natives of the Northern States do not attain full stature till between thirty and thirty-five years of age, while the Germans attain their full height at from twenty-five to thirty. The experience of other nations demonstrates the important bearing of this fact on the claims of the government for military service. In 1868, M. Champouillon, in the department of the Seine, had occasion to re-examine those who had been exempt in 1864, 1865 and 1866, and he found that of one hundred men who had been rejected in 1864 as below the standard, seventy-one had attained the requisite height in 1868; of the class of 1865, fifty-five men; and of the class of 1866, forty-five men.

A table showing the order of superiority in mean stature of twenty-four nativities, confirms the ethnological axiom that blond races are characterized by superior stature. The United

States Indian, with a mean average of 67.93 inches, stands at the head of the list; the United States whites are second; England, with an average of 66.57 inches, is eleventh; Germany twelfth, and France eighteenth, while Portugal is last of all, with an average of 65.43 inches.

An examination of the gradation in mean stature of the different States, places Kentucky, with an average of 68.67 inches, first, and Connecticut, with an average of 66.58 inches, last; the Western States generally having a higher mean average than the Eastern.

In measurements of the chest the man was naked, and the tape pressed evenly upon the nipples in front and the angles of the scapulæ behind, and the term "mean girth of chest," is to be understood as meaning at completed expiration. It was an interesting question to determine whether the development of the thorax increased in regular relation to increasing height, and such relation was not found to exist when comparing the mean height and mean girth of chest of all nations, or of the different States of the Union, but when each race is taken separately it is seen that the girth of chest increases as the height extends, with a regularity which would almost admit of a calculation by arithmetical progression in place of actual measurements. The records of the expansibility of the chest are extremely copious, and prove that the mobility of the chest also increases in arithmetical progression with increasing stature. Three inches was found to be a healthy mean expansion, but these records exhibit many instances of expansion of chest reaching seven inches. A remarkable instance of great expansive power was observed in a native of New Jersey, who was 28 years of age, 64 inches tall, 114 pounds in weight, and had an expansive power of seven inches. Among the cases of very limited mobility was that of a man who was $65\frac{1}{2}$ inches tall, weight 125 pounds, and had an expansion of hardly half an inch. In 501,068 examinations of all nationalities, whose mean height was 67.30 inches, and mean circumference of chest 33.53 inches, there was a mean expansion of 2.78 inches.

We would naturally expect to find that the mean age of the volunteers would be lower than the foreign born, or men con-

scripted, and of 190,000 men accepted, one-fourth were under twenty years of age, while the mean age of the whole number was 26.24: Only a few returns of weight were made, but from 1,000 observations, the mean weight was 140.91 pounds, the maximum being 220 pounds, and the minimum 100 pounds.

The term military aptitude expresses the union of all the conditions of admissibility into military service, and has been much employed by European writers. It is a statement of the number in the thousand of young men of twenty who are found fit for the army. Our statistics do not admit of comparison with European nations, as men of all ages between eighteen and forty-five years were enrolled; but we find that of 5,020,942 men enrolled, 3,807,432 were found fit for service, which makes the military aptitude of the nation for all ages, 760 in the thousand.

The next part includes sixty charts and eleven tinted maps; the former picturing to the eye the most interesting results of the tables, by representing numbers by lines, which bear the same relation, in linear measurement, to each other as do the numbers for which they stand. Twenty-four charts show the relation of various diseases to social condition, complexion, age, height and nativity; ten, the relation of disease to occupation; twenty-four, the relation to locality (by States), and two charts exhibit the relation of both, height and girth of chest to age and nativity. The maps show, approximately, by gradation of color, the prevalence of certain diseases throughout that part of the United States wherein the drafts were enforced. The charts show that married men were, as a rule, much more affected than the single; that men of light complexion were found more affected than the dark; that, as a general rule, the older men furnished a larger ratio of rejected, and lastly, that the ratio of rejections increases with the increase of height.

Of all nativities the Indians of the United States were found the most healthy, while Mexico suffered more from disqualifying diseases than any other country. Something remarkable is the close grouping of the English speaking countries, as we find in the list of twenty-four nationalities,

arranged in the order of healthfulness, that England stands No. 12, and the United States (white) No. 13, while Ireland, Wales and Scotland are Nos. 10, 11 and 14, respectively.

In studying the charts in relation to disease and occupation, we observe a steady and regular increase of disease as we ascend the social scale from the unskilled laborer to the professional man. Certain occupations which have generally been considered very unhealthy are shown not to be so on examination; for instance, the tobacconist and liquor dealer are found to be more healthy, as regards their digestive and nervous systems, than the dealers in other merchandise, and in fact than the average for all occupations. Lawyers are more subject to disease than men of any other profession, while editors suffer most from phthisis pulmonalis and more than the average with diseases of the digestive system. The musicians are shown to be the healthiest as a class.

The third and last part consists of reports of surgeons of the board of enrollment, and gives their judgment upon the fitness and sufficiency of the enrollment laws, together with a graphic account of the physical characteristics and the social and hygienic condition of the inhabitants of their respective districts. The portions of the report most interesting to the medical profession, are the accounts of the prevailing diseases of each district, with the accompanying explanation of the etiology; but the special value of these reports lies in the fact that they furnish a comprehensive view of the nosography of the Northern States, taken simultaneously by competent observers.

The first volume closes with an exhaustive and well arranged analytical index. An edition of five thousand copies of this work has been published, and its distribution is reserved to members of the present congress. H. H.

THE CHICAGO MEDICAL REGISTER. For 1876-7. Published under the supervision of the Chicago Medico-Historical Society. D. W. Graham, A.M., M.D., Editor. Chicago: W. T. Keener, Publisher. 1876.

This most commendable publication appears this year in a

more tasteful style than it did a year ago — with cloth covers and fine heavy paper — and it appears earlier. It is a little book of twenty-eight pages, and in the present edition all matter has been excluded except the list of regular physicians and of the officers of the society. The make-up of "the list" is sufficiently indicated by the title, which reads as follows: "Physicians in Chicago who have been accredited to the Chicago Medico-Historical Society as in good and regular standing according to the Code of Ethics of the American Medical Association, and whose names are liable to excision from the list for violation of the Code." The list contains three hundred and fifty-three (353) names, and it probably more nearly approaches the ideal of what the society would make it than has any previous edition.

The Medico-Historical Society is to be congratulated on the persistent and very sensible way in which it has prosecuted its work, and — in this age of fallible men and women — on results with so few imperfections as it this year presents. The editor is to be especially congratulated.

The list of officers is as follows: President, Thos. Bevan; Vice-President, E. L. Holmes; Treasurer, R. G. Bogue; Secretary, P. S. Hayes; Diarist, S. Wickersham. Publication Committee: E. Ingals, John Bartlett, F. C. Hotz.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

Chirurgie-Antiseptique, principes, modes d'application et résultats du pansement de Lister. By Le dr. J. Lucas-Champonnière.

A Manual of Percussion and Auscultation; of the physical diagnoses of the lungs and heart, and of thoracic aneurism. By Austin Flint, M.D., etc.

A Manual of Midwifery. Second American, from third London edition; revised and enlarged. By Alfred Meadows, M.D., etc.

The Theory and Practice of Medicine. Second American edition. By F. T. Roberts, M.D., etc.

- On Tracheotomy, especially in relation to diseases of the Larynx and Trachea. By W. Pugin Thornton, Surgeon, etc.
- Diseases of the Bladder, Prostate Gland and Urethra, etc. Being the fourth edition of the "Irritable Bladder," revised and enlarged. By Frederick James Gant, F.R.C.S., etc.
- Hay Fever, or Summer Catarrh, etc. By Geo. M. Beard, A.M., M.D., etc.
- Studies, chiefly clinical, on the non-emetic use of Ipecacuanha, etc. By A. A. Woodhull, M.D., etc.
- Physicians' Visiting List and Complete Pocket Record. Prepared by James I. Hale, M.D., Anna, Ill. 1876.
- Transactions of the College of Physicians of Philadelphia. Third Series. Vol. II. 1876.
- A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P., etc.

PAMPHLETS.

- Report on Vaccination, being an inquiry concerning Human Vaccine, Vaccino-Syphilis and Animal Vaccine, etc. By Wm. B. Davis, A.M., M.D., etc.
- A Clinical Lecture on the use of Plastic Dressing in fractures of the lower extremities. By D. W. Yandell, M.D., etc.
- Transactions of the Medical Association of the State of Missouri. 1876.
- An Address on some of the leading Public Health Questions; with remarks on the extent of swamp lands in the United States and their reclamation as a sanitary and economic measure. By J. M. Toner, M.D., etc.
- Annual Announcements for 1876 of the National Medical College of the Columbian University, Washington, and Hahnemann Medical College and Hospital, Chicago, Ill.
- Report of the Committee on Medical Education, made to the Medical Society of the State of California. By J. F. Montgomery, M.D., Chairman, etc. 1876.
- Transactions of the Medical Association of the State of Alabama. 1876.
- Western North Carolina as a health resort. By W. Gleitsmann, M.D. 1876.
- The Climatotherapy of the American Mountain Sanitarium for Consumption. By S. E. Chaillé, A.M., M.D., etc. 1876.
- Third Annual Announcement of the College of Physicians and Surgeons of Indiana, Indianapolis. 1876-7.

Summary of Progress in the Medical Sciences.

I. OBSTETRICS.

1. *Triple Pregnancy.* LERICHE. (*Lyon Méd.*, July 9, 1876.)

A woman, in her third labor, was delivered of a male infant at 4:30 P. M., another at 5:30 P. M., and a female child at 6:30—the first presented by the vertex, the second by the breech, and the third by the shoulder. The first child seemed to be at term; the second had the development of a fœtus at eight and a half months; and the third of seven, or seven and a half months. All were vigorous and well formed. The placenta weighed 510 grammes. It was divided into two unequal masses, united by a common cotyledon. The smallest mass, which was symmetrically rounded, gave origin to an umbilical cord of ordinary volume, forty ctm. in length. This was attached to the first child. The other placental mass was larger and furnished two cords, each like the first having a distinct amniotic cavity. The smaller of these, thirty-six ctm. in length, was attached to the second child. The third, (corresponding to the third infant,) was slender and varicose, but thirty-three ctm. in length. It was inserted upon the external border of the placenta. The two cords which emerged from the same placental mass were attached to fœtus of a different sex.

II. GYNECOLOGY.

1. *Metastasis of Mumps in Women.* DAMOREST. (*Lyon Méd.*, No. 22.)

The author, in view of the recognized sympathy between the parotid glands and the genitalia, refers to the fact that, in women, metastasis occurs rather to the mammary and vulvar glands than to the ovaries, while in boys the testicles are affected. He reports two cases showing that the ovaries may be involved when females are attacked by mumps. Yet Trousseau, Grisolle and Niemeyer never noted such an occurrence; and Meyner, (*Gaz. Méd. de Lyon*, 1866,) publishes but one observation of the same. In the author's first case the parotiditis supplemented the menstrual flow, and the same was observed in the second case. In the latter, also, there was ovarian pain, and tenderness on both sides, with fever. Damorest concludes by remarking that it would be interesting to know whether, after such an attack, a young girl could become a mother.

2. *Formation of Vagina without employment of Cutting Instruments.* LEFORT. (*L'Union Méd.*, No. 91.)

A woman twenty-six years old, had suffered from general disorder at the menstrual periods since her fifteenth year. In consequence of the absence

of the vagina, the menses had been replaced by supplementary hæmorrhages; hæmoptyses, bleeding from the integument of the limbs, excessively painful and often intolerable epistaxis. In 1872 she entered La Pitié, where Labbé performed ten operations with the only result of creating a vulvar infundibulum a few centimetres in depth. Discouraged by this failure, the patient left the hospital after a sojourn there of eighteen months. But the pain and supplementary hæmorrhage continuing, she entered the Beaujon in July, 1875, where M. Anger succeeded LeFort, and performed the eleventh operation, which increased the depth of the infundibulum, but was followed by a severe attack of pelvi-peritonitis, which compelled LeFort to suspend interference until January, 1876.

He then operated by introducing a boxwood cylinder terminating in a metallic knob placed in connection with the positive pole of a battery of small elements, with sulphate of copper. The negative pole connected with a metallic disk surrounded by moistened linen and resting upon the abdominal surface. This weak current is not perceived by patients and only produces an eschar which is small in the immediate contact of the metallic rheophors. The apparatus was placed *in situ* every evening and kept there all night. Little by little the stem made a way for itself in the vesico-rectal septum, and, on the 26th of February it had penetrated as far as the cervix uteri. Then, for the first time, the patient experienced, at her menstrual epoch, a moderate flow of blood from the vagina: though the latter still escaped with difficulty as there was conjointly abdominal pain and slight hæmoptysis. But the treatment having been continued for another month, a canal was formed of sufficient size, and menstruation has since become painless, normal, and perfectly regular.

After two months stay at Vesinet, in consequence of a pneumonia with which she was attacked, the patient re-entered the Beaujon July 1st, and the treatment was renewed—this time for the purpose of giving to the vagina a sufficient size. Finally, on the 29th of July it was possible to establish, by the aid of the speculum, a small and irregular cervix ten centimeters in depth. An hysterometre introduced by the orifice of the neck, penetrated to the extent of six and a half centimeters, the uterine cavity being consequently of normal length. The result, therefore, is complete. In order to render it permanent, and to prevent the retraction of the artificially formed canal, it will suffice for the patient to introduce nightly an intra-vaginal pessary in the form of a cylindro-conical stem of box-wood or ivory—"that is," (adds the French author, with characteristic naïveté,) "in default of those physiological measures which her years might permit."

3. *On the Treatment of Uterine Affections by Hydrotherapy.* DERIVAUX. (*Thèse de Paris*, No. 190.)

Here are the author's conclusions upon the employment of cold water in uterine disorders:

1. Hydrotherapy should be regarded as the basis of treatment in both

the first and second stages of chronic parenchymatous metritis. With it should be often associated the employment of the actual cautery. It has no direct curative action upon ulcerative folliculitis, but hastens the cicatrization of ulcerations, caused by uterine engorgement.

2. Hydrotherapy is a most useful and necessary auxiliary in the treatment of chronic metritis involving the mucous membrane. By revulsion and derivation, it overcomes the two most serious symptoms of the disease, viz., metrorrhagia and uterine leucorrhœa. Its efficacy in hæmorrhage renders it a precious palliative in the gravest affections to which the uterus is liable — fibromata and carcinomata.

3. By its general restorative action and its local tonic effect upon the suspensory ligaments, hydrotherapy is always more or less remedial in hysteroptosis, and relieves its most painful sequelæ. When anteversion is caused by uterine engorgement, it procures reposition of the organ. But its action is most feeble in retroversion, and quite *null* in uterine inflexion.

4. Hydrotherapy constitutes the most efficacious treatment in amenorrhœa from constitutional feebleness, and dysmenorrhœa from a similar cause. In menorrhagia it takes precedence of all other therapeutic agents, and combats with success congestive and neuralgic dysmenorrhœas, and the disorders attending the menopause.

5. General and local nervous disorders, and the painful symptoms connected with uterine lesions, disappear under the influence of hydrotherapy even before the material local disorder is profoundly modified. The restoration of the general health is obtained by no medication with as much sureness and rapidity as by cold applications. And it may be added that the most advanced degree of marasmus will not permit us to think of any other therapeutic agent.

III. THERAPEUTICS.

1. *Salicylic Acid*. PETERHAUSEN. (*Detroit Review*, September, 1876.)

Dr. H. P. V. Petershausen, reviewing the principal facts known in regard to salicylic acid reaches the following conclusions:

1. It is an excellent antiseptic when applied *externally*, and in surgery may take the place of carbolic acid on many occasions.
2. It is probably the best antipyretic now known, quinine not excluded, when applied internally.
3. As an internal remedy it has no antiseptic properties.
4. The best form in which it is given internally is sodium salicylate.

J. S. K.

2. *Local use of Bromide of Potassium*. COOMES. (*Cincinnati Medical News*, February, 1876.)

The bromide of potassium applied to mucous surfaces, is a local anæsthetic, although this effect is secondary unless used in weak solution, say

ten or fifteen grains to the ounce of water. The action of the bromide when applied to mucous surfaces in substance, or saturated solution, resembles that of caustic. Its effects upon mucous surfaces are not visible, like those of an ordinary caustic. It does not whiten the tissues, nor is its application painless, as is the case with many caustics. When applied to the schneiderian membrane or palpebral conjunctiva the pain is severe and of a hot burning character. The larynx and fauces are more tolerant of its action than the eye or nose, but the pain is similar in being associated with heat. The duration of the pain is never more than a few seconds. Applied to congested mucous surfaces, it discharges the distended vessels and increases the secretive action of the mucous follicles.

In papillary ophthalmia, commonly called "granular lids," the results of its action are similar to those obtained from the use of muriate of ammonia. It reduces the hypertrophy, increases the amount of secretion, and allays pain. Its anæsthetic properties alone give it an advantage over the ammonia.

In the treatment of nasal catarrh, where there is a dry condition of the membrane, the bromide in powder or saturated solution is an agent of great value. Where there is hypertrophy of the membrane lining the nasal cavities, with an insufficient amount of the normal secretions, a condition met with in proliferous inflammation of the membrane, insufflations of the powdered bromide, or injections of the saturated solution produce excellent results. By its use the secretions of the membrane are increased, congestion lessened, and a marked reduction made in the hypertrophied tissues. Its immediate effects in these cases of proliferous inflammation of the nasal cavities is to relieve the patient of that sense of "stiffness" which is most always complained of.

For the last year and a half I have relied almost entirely upon the bromide of potassium as a local agent in the treatment of throat affections. It has but rarely disappointed me. The results which I have obtained from its use in this class of diseases have been most gratifying. In cases of acute tonsillitis and pharyngitis, it matters not whether in their incipency or in the advanced stages, a solution of the bromide of potassium, sixty grains to the ounce of water, applied with a mop, or with an atomizer every hour or two, will be found to produce well nigh complete relief. In cases of ulceration the open sore should be touched with carbolic acid or nitrate of silver. In but few cases will it be necessary to apply the escharotic a second time. Under this plan of treatment all the painful and distressing symptoms that attend such cases speedily disappear. In every instance the patients treated with the bromide expressed themselves as feeling a great relief immediately after the application of the drug. These statements have been verified by the rapid reduction of temperature in the affected part, the restoration of the functions in the mucous follicles in the vicinity, the disengagement of the distended blood vessels, and almost an entire absence of pain during the whole course of the disease.—*Half-Yearly Compendium*, July, 1876.

J. S. K

IV. DERMATOLOGY AND SYPHILIS.

1. *Tracheotomy in Extremis for Asphyxia from Syphilitic Laryngitis.* QUISE. (*Lyon Médic.*, No. 26.)

A patient with syphilitic antecedents had secondary laryngeal disorder, with subsequent complete aphonia and dysphagia. Suddenly the hoarseness, which remained after the aphonia was relieved, became aggravated, and asphyxia rapidly supervened. After two of these attacks he resorted to the hospital, and, on the night following his entry, a third attack produced insensibility. At 10 A. M. he was apparently dead—respiration was suspended, the face was turgescient and cyanosed, pulse imperceptible, insensibility absolute. Tracheotomy was performed with a single stroke, a double cannula inserted, and respiration gradually established, the patient during his restoration exhibiting convulsive phenomena of the face, limbs and trunk. One hour elapsed before he was restored to consciousness. An abundant purulent discharge escaped from the cannula for about two weeks, producing much disturbance of respiration, sleep, deglutition, etc.; but under the influence of the iodide of potassium this gradually diminished, and finally ceased, when the cannula was removed.

The laryngoscopic examination disclosed several white spots upon the vestibule of the glottis, a normal epiglottis, and thickened vocal cords, the right showing several small whitish points, with three small indentations of a light rosy hue, upon the border.

A second examination, twelve days later, disclosed a marked improvement in all these particulars. The patient was entirely relieved, except for the moderate vocal huskiness.

2. *Diagnosis of Pustulo-Crustaceous Syphilide.* HARDY. (*Le Progrès Méd.*, No. 33.)

The distinguished professor, in his clinical remarks upon the case of a woman affected with this disease, remarked that in scrofula the ulcerations are covered with a more voluminous crust, and have a special color. They are white or gray, or even black if a small amount of blood has been effused—never yellowish-green, as in this instance. In scrofula, also, there is œdematous swelling of the tissues in the neighborhood of the ulceration. When upon the face, the nose is increased in size, the upper lip is thick and projecting. In this instance there is, it is true, a slight degree of swelling of the skin, but it is dense and firm. Here also the tint is brownish or dark brown—it is not of a vinous color, as in scrofula. Besides, the lesions of scrofula are slow of evolution, requiring months and even years. It is rare that pustules are produced and cured as rapidly as in this case. Here the patient has almost had no treatment, and yet the disease has disappeared from the nose. If we had to deal with a scrofulide, we should find at this point ulceration and crusting in full activity.

Here also there is no history of scrofula. It is exceedingly rare that scrofulous manifestations appear upon the skin for the first time after the

thirtieth or fortieth year, and even in that case there has generally been some predisposing accident to the tissues. The cicatrices seen upon the limbs of the patient are not scrofulous; they are characteristic of syphilis — small, shallow and smooth, very slightly depressed. The cicatrices of scrofulides are either projecting or deeply depressed, reticulated, and often present the appearance of keloid.

3. *Biniiodide of Mercury in Superficial Lupus.* GUIBOUT. (*Gaz. des Hôpît.*, Aug. 5, 1876.)

A female confectioner, thirty-seven years old, had upon the chin and the larger part of the left cheek a superficial lupus, or tuberculo-ulcerative scrofulide, which had lasted for fifteen years. No good results had been obtained from various local applications, including the actual cautery. The affection almost completely disappeared after five applications of an ointment consisting of equal parts of lard and the biniiodide of mercury. The cicatrices are still somewhat red, but are gradually losing this color. She stated that each application produced, about one hour afterward, an almost intolerable pain, which lasted for five or six hours. At the same time a great quantity of "reddish water" escaped from the surfaces attacked. The author states that the ointment produces a crop of ecthymatous pustules, which burst and form crusts. When these latter separate the skin beneath is found less swollen and more supple, while the ulcerated patches have begun to cicatrize.

The applications should not be too frequently repeated. Eight days after the first the patient referred to above was in an improved condition. The lupus itself had ceased to be painful. The cheek grew smaller, its normal volume was restored, cicatrization rapidly ensued, and is now perfect. Upon the skin nothing remains but a few rows of minute tubercles, upon which a layer of ointment has been spread.

4. *Syphiloma of the Tubercula Quadrigemina.* FIORI. (*Gaz. di R. Accad. di Med. di Torino*, Aug., 1876.)

The author reports the case of a young man, with probable syphilitic antecedents, who had a saber wound of the left parietal region, from which he recovered. Soon after he fell to the ground insensible, but was relieved after suffering from transient hemiplegia. Then followed peculiar spasmodic accesses, with decreasing intervals, in which the head was twisted to the left, and the entire body performed partial rotations to the left upon its vertical axis. In the later attacks there was no loss of sensibility, but the eyes were turned to the left, and the tongue, left labial commissure, uvula, pupils and sterno-cleido-mastoid muscles were manifestly affected.

The author analyzes the meaning of the various symptoms in the case, and compares them with the results obtained by the experiments and researches of Adamuk, Schiff, Ferrier, Hitzig, Fritsch, Brown-Sequard and others. He concludes that there was lesion of the tubercula quadrigemina, with possible arterial complication (especially at the outset), and localized

hæmorrhage. The treatment justified the diagnosis—at least in part. No improvement was had by the administration of bromide of potassium and chloral, or by hypodermic injections of sulphate of atropia. Complete cure was obtained after employment of mercury and the iodide of potassium, the patient leaving the clinic of the Royal University of Turin in a condition of perfect health.

V. PHYSIOLOGY AND ANATOMY.

1. *The Force of Ciliary Motion.* H. P. BOWDITCH, M.D. (*Boston M. and S. Jr.*, Aug. 10, 1876.)

After referring to the experiments of Valentine, Engelmann and Calimburces, demonstrating the power of the cilia to move very light bodies, B. describes the experiment of Prof. Wyman with heavier bodies. W. stretched, in a horizontal position, a patch of mucous membrane from the frog's mouth, previously dissected up, and having securely fixed it, he constructed a load, the under surface of which was made of fresh frog's skin, taken from near the throat. The rate at which this load was moved by the cilia was carefully noted, and with different sized weights. "A weight of 1.3 grammes was carried 15 m. m. in about one minute, the weight resting on a surface 12 m. m. square; and 48 grammes, resting on a surface 14 m. m. square," was moved but very slowly.

B. undertook to demonstrate the limit of the force capable of being exercised by cilia, and for the purpose arranged his experiments so as to compel the weight to be carried, instead of on a horizontal surface, up an inclined plane. "Then the product of the weight, by the height through which it was lifted, would give the value sought." This embodied the only essential modification of Wyman's experiments.

He took observations with the ciliated membrane inclined so as to make a grade of 10 per cent., afterward with the membrane vertical and with weights upon a base of 1.437 square c. m. of 5, 10 and 20 grammes "placed successively upon a vehicle weighing 0.534 gramme." The results, in brief, of his study show that the cilia on one square centimeter (4.10 inch square) of surface are capable of performing in one minute an amount of work equal to the lifting of 6.805 grammes (over 100 grs.) of weight through a height of one millimeter (1.25 inch). He concludes "the ciliated cells perform in one minute an amount of work equal to lifting their own weight to the height of 4.253 meters," ($167\frac{1}{3}$ inches.)

An idea of the rapidity of motion may be gained by noting that with the ciliated membrane vertical, and the weight about half a gramme (7 grs.), the rate at which the body was moved would have carried it through one inch of space in about two minutes and five seconds.

VI. PRACTICAL MEDICINE.

1. *Disorders of the Vascular System in Burns.* COUSTOU. (*Jour. de Méd. et de Chir.*, May, 1876.)

These are less common than the attacks of pleurisy, bronchitis, pneumonia and enteritis, so often observed as complications of burns, but are equally interesting. The accidents referred to are phlebitis and the formation of clots in vessels, due to alterations in the fluidity of the blood. Where burns are extensive and accompanied by extensive phlyctenular eruption, an enormous quantity of serosity is withdrawn from the blood, which thus becomes thicker and more readily coagulable. This also accounts for the tendency to syncope in these severe cases. C's observations (service of Professor Verneuil) were all of extensive burns of the trunk. In the first case, after five weeks, there was œdema of the left leg, and a hard, resisting cord could be felt along the line of the femoral vessels in the thigh. Phlebitis of the femoral and external iliac veins was discovered, *post mortem*. In a second patient, six weeks after injury, when the wound was progressing to cicatrization and the general health was fair, there occurred phlebitis of the femoral vein and erysipelas, followed by recovery. Eleven days after the burn received by a third patient, there was complete hemiplegia and hemianæsthesia of the entire right side of the trunk, supposed to be due to temporary obliteration of the sylvian artery by a coagulum. In this case the right side of the head and face was similarly affected.

2. *A Case of Acute Fibrinous Bronchitis with tube casts.* E. D. WORTHINGTON, M.D. (*Canada Med. and Surg. Jour.*, June, 1876.)

The patient was a stout English woman, forty-one years old, and the mother of thirteen children, the youngest only three months old. She had for several days, with slight symptoms of fever, "labored respiration." Suddenly she was attacked with severe dyspnœa and violent paroxysms of coughing, with pain in the chest, great distress of countenance, and a livid hue of the skin. She soon succeeded in expectorating a mass of tube casts of the bronchi as large as a tablespoonful. "In a few hours another paroxysm of coughing ended in more expectoration of tube casts, the disappearance of the cyanosis, and most marked relief to the patient." The patient recovered. "Some of the larger specimens had a diameter at the base of fully three-eighths of an inch;" they were cylindrical, white or pearly color, with a few delicately colored pink spots. One mass had twenty-eight terminal branches, and was four and one-half inches long. The patient continued to cough up casts for two months, notwithstanding she recovered her general health, so that at the end of this time she was able to make a journey to England. Dr. W. says this is so rare an affection that "of acute, fibrinous bronchitis, with fibrinous expectoration, Lebert could find but seventeen observations, after a careful analysis of all the cases known at the time of writing." Each cast consisted of a number of

laminæ, arranged concentrically, those in the center being folded and involuted. Under an objective of five hundred diameters the laminæ were translucent and structureless; the spaces between them were filled with fine fibrils of fibrine and innumerable leucocytes.

3. *Rare case of Gall Stones discharged through the side.* D. PERLEY, M.D. (*Boston Med. and Surg. Jour.*, June 22, 1876.)

The patient, a male, was seventy-six years old. He had had frequently pain in the region of the liver, and in 1869 an abscess formed in this locality, with great systemic disturbance. The cavity was opened and discharged pus and dark matter; in a month gall stones began to be discharged. The discharge of the stones continued with "volcanic irregularity of rest and activity" till December, 1873, since which time there had been no discharge. The patient's health had greatly improved.

4. *The Menses in Phthisical Patients.* LADMIRAL. (*Lyon Médic.*, No. 22.)

Menstruation and evolution are two distinct and yet closely allied functions; hence the possibility (and this is not unfrequently noted) of conception by a woman whose menstrual flow has disappeared under the influence of a general disease.

Ordinarily the suppression of the menstrual flow, in a woman who coughs and becomes emaciated, is a symptom which points to the rapid evolution of pulmonary tuberculosis. In a large number of patients the catamenial function is suspended at the same time that the disorder of the lungs is advancing; there are rarer cases where the amenorrhœa precedes the habitual manifestations of the diathesis. It is this fact which leads some to look to the uterus for a lesion which does not exist. Hence, *always when there is menstrual suppression without appreciable cause, and when pregnancy cannot be considered possible, physicians should carefully examine the chest and give a reserved diagnosis.* The menstrual flow, however, has no influence upon the march of pulmonary phthisis; but its reappearance always coincides with a period of arrest or cure of the disease (temporary or permanent), and is a proof of the fair condition of the constitution.

Dr. Mollière, in reviewing Ladmiral's treatise, concludes that the author has not been sufficiently explicit on this point, viz.: whether the existence of pregnancy should be admitted or denied when these variations in the menstrual function occur. It is often true that women who are profoundly affected are also apt to conceive; and, *per contra*, certain general symptoms may co-exist with amenorrhœa, and lead to a suspicion of the early stage of a pregnancy which does not exist.

5. *The Abortive Treatment of Whooping Cough by Sulphate of Quinine.* R. K. HINTON, M.D. (*Med. and Surg. Reporter*, Aug. 26, 1876.)

Dr. H. reports ten cases in which this treatment was successful. The ages of some of the patients are omitted in the report, but we gather that the range of their ages was at least from eighteen months to twenty-four

years. The doses given were one to five grs. every three to six hours, according to age and severity. In all the cases the pertussis was aborted, the period required varying from a few hours to a week.

Unfortunately, the doctor does not state whether he has had any cases of failure of this treatment, and if he has, how many. The value of his observations are very much lessened by this omission. In order to give children quinine without their tasting or afterward vomiting it, he has the doses rolled up in wafers. A wafer is moistened, to make it soft, and then placed in a spoon nearly full of water; the spoon is reached far back upon the tongue, and its contents emptied into the throat; the wafer is swallowed as readily as the water. "The smallest child can swallow the wafer and retain the quinine without vomiting."

VII. SURGERY.

1. *Fracture of the Base of the Cranium.* VOLTOLINI. (*Monatsschr. für Ohrenheilk*, No. 1, 1876.)

The author concludes, from a review of published cases, that where the encephalo-rachidian fluid escapes—and especially when the result is favorable—the liquid does not proceed from the sub-arachnoid space, but from fracture of the labyrinth. If the liquid were cephalo-spinal there must have been necessarily a rupture of the dura-mater (a dangerous lesion of this organ), and the opening would remain patulous, permitting the escape of liquid for a considerable time. This cannot occur without the concomitant of serious symptoms of inflammation of the meninges, as in the first three cases reported. If a rupture of the dura-mater happens, there are two passages by which the liquid can reach the external auditory conduit, viz.: by the vault of the tympanic enclosure, the enclosure itself, and then through the membranum tympani; or the fissure may involve the promontory, when, if the arachnoid and dura-mater are both torn, the labyrinthine and encephalo-spinal liquids escape together.

We do not know the rapidity with which the labyrinthine liquid can be reproduced, so when a large amount of a liquid is discharged by the ear it cannot be determined whence it comes. Voltolini believes that the cases of Birkett, Heath and Morris, which resulted in a cure, were instances of labyrinthine fracture; and to prove that the labyrinth may become the site of a grave lesion without serious encephalic complication, he cites the cases of labyrinthine necrosis and otitis in which all alterations were noted as limited to situations external to the cranial cavity.

The practical inference is: always examine with care the condition of the sense of hearing in an injured individual.

2. *Traumatism by the bite of Horses.* TILLAUX. (*La France Méd.*, No. 43.)

The author of the paper read by Tillaux (M. Gillette) before the Société

de Chirurgie had made sixty-six observations, in fifty of which the superior part of the body was injured by the bite of the horse. The animal is generally not content with seizing the part attacked between the jaws, he exercises more or less pressure upon it, or raises the individual from the earth, so as to tear and strip the tissues. We have then, generally, either pressure or tearing. Two ecchymotic arcs are characteristic of the bite by pressure.

The parts which are bitten and torn are not all alike. There may be produced a section as complete as if done by a cutting instrument. Thus, in one case, a horse tore off the finger of a soldier, after having made so clean a cut that the man was accused of self-mutilation.

The accidents caused by horse bite are of various sorts. In three cases tetanus occurred. In three others a curious fact was noticed: in consequence of contusion of the nerve in its canal, there resulted paralysis and permanent loss of power in the upper limb. Prognosis should be guarded in such cases, for from the cutaneous symptoms alone the injury to deeper parts cannot be determined.

The treatment consists in making free openings, but Gillette employs also the actual cautery. There is a question to be solved, whether the saliva of the horse does not contain a virulent principle.

3. *On the Treatment of In-growing Toe Nail.* BERTHERAUD. (*Gaz. Méd. de l'Algérie — Revue de Théor. Méd. Chir.*)

The author, after fully describing the disorder and discussing Dupuytren's sole remedy — complete avulsion of the nail — suggests the following procedure: The in-growing portion of the nail is first torn or cut away, according to the circumstances of each case, and then the fleshy part in which it was buried is covered with a disk of plaster, having a central perforation. Upon this central opening is placed a layer of Vienna paste, which thus destroys just enough of the inflamed surface, without causing too great a loss of substance. When the eschar falls it leaves an excavated wound, whose depression is increased later by the cicatricial retraction. When the nail grows again there is nothing to arrest its lateral expansion — it passes *over* the retracted tissues. The cure is perfect, and there is no relapse.

(A better, because it is a simpler, method has been devised, by Dr. Frank Hamilton, we believe, which accomplishes the same end. The nail is left undisturbed; but the point of a bistoury is passed along that part which is buried in the flesh, and, with a single sweep, all the soft tissue is removed beyond the nail border. Thereafter, the result is that given above. The cicatrix prevents the reformation of the granulating spongy mass, and the nail grows downward over it.—Ed.)

4. *New Method of Staphylorrhaphy.* SCHOENBORN. (*Arch. f. Klin. Chir.* XIX.—*Centralbl. f. Chir.* 21, 1876.)

In order to remove the nasal sound of the voice which remains even after a successful uranoplasty and staphylorrhaphy, Sch. suggests the insertion,

between the two halves of the soft palate, of a flap taken from the posterior wall of the pharynx. Sch. advises by the first operation to unite this pharyngeal flap with the soft palate, and after this union is established to close the fissure of the hard palate by a second operation. In regard to the formation of the pharyngeal flap he says: "After paring the edges of the cleft of the soft palate, one cuts out, with a scalpel having a long stem, an oblong flap in the posterior wall of the pharynx. The flap is cut from below upwards, with its basis below and its triangular-shaped apex as high up as possible, and is taken pretty thick; well dissected off from the subjacent structures, it is fastened to and between the halves of the cleft velum palati by means of sutures." Sch. has performed this operation on a girl aged seventeen years. Immediately after her recovery her speech was clear and easily intelligible; the nasal sound had not disappeared entirely yet, but it grew less from week to week. There was no difficulty in deglutition or in breathing through the nose.

VIII. OPHTHALMOLOGY AND OTOTOLOGY.

1. *The Injurious Effects of the Nasal Douche.* DR. HENRY L. SHAW.
(*Boston Med. and Surg. Journal*, 1876, No. 23.)

For many years aurists have considered the treatment of nasal catarrh with the douche as attended with serious danger, this danger being the flooding of the Eustachian tubes and passing of liquid into the tympanum, thereby causing inflammation of that organ with all its sequelæ. As early as 1869 Dr. Roosa speaks of the danger of the douche, and in an article published in the "*Archives of Ophthalm. and Otology*," Vol. II., he has collected from various sources sixteen cases in which results more or less serious followed its use. Dr. Pardee (in *New York Med. Gaz.*, Vol. VI.) reports several cases in which acute aural inflammation was caused by it. Other cases have been reported, the ætiology of which cannot be doubted, all tending to show its injurious effects. The opinion that the employment of the douche should be discountenanced by the profession, is now quite generally accepted by aurists. Dr. S., however, is inclined to believe that the use of the nasal syringe, also, and all other appliances for flooding the nasal cavity, is attended with some risk, and that it is not even necessary for liquids to enter the tympanum to produce harm. In support of this opinion eighteen cases of injury are presented, in sixteen of which it was from the nasal douche and syringe, in one from the forcing of liquid into the tympanum by the Valsavian method, and in one from the snuffing of liquid into the nostrils. In five cases there was acute otitis media, with perforation of the drum-head, from the douche. In five there was acute otitis media, without perforation of the drum-head, from the douche. In two there was subacute otitis media, without perforation of the drum-head, from the douche. In one there was increase of chronic otitis media from the douche. In one there was acute otitis media, without perforation of

the drum-head, from the syringe. In one there was subacute otitis media, without perforation of the drum-head, from the syringe. In one there was acute otitis media, with perforation of the drum-head, from snuffing liquids into the nostrils. In one there was subacute otitis media in one ear, and formation of polypus in the other ear, from forcing liquids into the tympanum by the Valsavian method.

2. *Artificial Atrophy of the Eyeball.* S. VIDOR AND N. FEUER. (*Memorabil.*, xxi., 2.)

Græfe, we believe, was the first who suggested, in certain deformities of the eye, the attempt to induce a partial and gradual shrinkage of the eyeball by passing a thread through the posterior half of the eyeball. This thread is left in situ until the necessary inflammation in the tissues of the eye is started, to insure the subsequent atrophy. The final object of this procedure is the obtaining of a serviceable stump which is better adapted for the support of an artificial eye than the socket which is left after the enucleation of the eyeball.

Vidor (*Jahrb. f. Kinderheilk*) reports three such cases. The first case was an hydrophthalmus in a boy five years old. The globe was greatly expanded in all directions; the cornea was hazy and the sclerotic was very thin; cause, unknown; perception of light, none. A thread was put through the eyeball behind the ciliary ring and from one side of the sclerotic to the other. But for twelve days the presence of the thread was so well tolerated that the doctor moved it to and fro several times in order to produce more irritation. Three days later pus appeared behind the cornea; the thread was removed; a copious discharge of pus took place, and from the seventh day after removing the thread the suppuration subsided. Within one month the eyeball had shrunk to half the normal size, and was free of all irritation.

In the second case (staphyloma of cornea and sclerotic) the thread remained in the eyeball for seven full weeks without producing any violent reaction. The eyeball, however, began to get softer and smaller after the fifth day, and finally the thread had to be withdrawn for fear the ball would shrink too much.

The third eye also showed a great indifference for the thread, and did not secrete any pus until the thread had been pulled upon intentionally; still it had to remain in the eye six weeks.

Compared with these observations, Feuer's nine cases (*Pester med. chir. Presse*) are interesting for the short time during which the thread remained in the eyeball; the longest period being thirty-six hours, and the shortest four hours. The thread was removed as soon as the ocular conjunctiva became œdematous.

In three cases the reaction was moderate, and the globe shrank to the desired degree. In the other cases the reaction was more violent, and in some the inflammation induced by the thread assumed the character of a true panophthalmitis, though the thread had been left in the eye but a few (5, 10, 13) hours.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, Oct. 2 and 16.—Chicago Medical Society. Regular meetings.

Mondays, Oct. 9 and 23.—Chicago Soc. of Physicians and Surgeons. Regular meetings.

CLINICS. Every Monday.

At Eye and Ear Infirmary, 2 P. M.—Prof. Holmes.

At Central Dispensary (Wood and Harrison sts.), 2 P. M. *Gynecological*—Dr. Adolphus; 3, *Medical*—Dr. Bridge; 3, *Dermatological*—Dr. W. J. Maynard.

At Mercy Hospital, 2 P. M. *Medical*—Prof. Johnson.

At Chicago College, 2 P. M. *Gynecological*—Prof. Merriman.

LECTURES. Every Monday.

At Rush Medical College (Harrison and Wood sts.)—9½ to 12½ o'clock, Profs. Freer, Lyman and Powell; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Hyde, Hatfield and Bond; 3 to 6, Profs. Nelson and Davis, Quine and Andrews, and Roler.

TUESDAYS. SOCIETIES.

Tuesday, Oct. 10.—Academy of Science. Regular meeting at 8 P. M. (263 Wabash av.)

Tuesday, Oct. 26.—Medico-Historical Society. Regular meeting, 8 P. M.

CLINICS. Every Tuesday.

At County Hospital, 2 P. M.; *Medical*—Prof. Ross. 3 P. M.; *Surgical*—Prof. Powell.

At Mercy Hospital, 2 P. M.; *Medical*—Prof. Hollister.

At Chicago College, 2 P. M.; *Gynecological*—Prof. Roler.

At Central Dispensary, 2, *Surgical*—Dr. Graham. 2, *Diseases of Chest*—Dr. Ingals.

LECTURES. Every Tuesday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Quine, Merriman and Bond; 3 to 6, Profs. Davis and Nelson, Andrews and Hatfield, and Byford.

WEDNESDAYS. CLINICS. Every Wednesday.

At County Hospital—2 P. M., *Gynecological*, Prof. Fitch; 2 P. M., *Ophthalmological*, Dr. Montgomery.

At Chicago College—2 P. M., *Gynecological*, Prof. Nelson.

At Mercy Hospital—2 P. M., *Surgical*, Prof. Andrews.

At Central Dispensary—2 P. M., *Gynecological*, Prof. Etheridge; 3 P. M., *Medical*, Dr. Bridge; 3 P. M., *Dermatological*, Dr. Maynard.

LECTURES. Every Wednesday.

At Rush College—9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Etheridge and Haines. At Chicago College—8½ to 12½, Profs. Hyde, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Curtis, Quine and Jones, and Roler.

THURSDAYS. CLINICS. Every Thursday.

At Mercy Hospital—2 P. M., *Medical*, Prof. Johnson.

At Rush College—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Diseases of the Nervous System*, Prof. Lyman.

At Chicago College—2 P. M., *Gynecological*, Prof. Merriman.

At Central Dispensary—2 P. M., *Surgical*, Dr. Graham; 2, *Diseases of Chest*, Dr. Ingals.

LECTURES. Every Thursday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Etheridge. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Merriman and Bond; 3 to 6, Profs. Davis and Nelson, Andrews and Hatfield, and Byford.

FRIDAYS. SOCIETIES.

Friday, Oct. 13.—State Microscopical Society of Illinois. Regular meeting, 8 P. M.

CLINICS. Every Friday.

At County Hospital—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Surgical*, Prof. Powell.

At Mercy Hospital—2 P. M., *Ophthalmological*, Prof. Jones.

At Chicago College—2 P. M., *Gynecological*, Prof. Roler.

At Central Dispensary—2 P. M., *Gynecological*, Dr. Adolphus.

LECTURES. Every Friday.

At Rush College | 9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Gunn and Holmes. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Nelson, Jones and Quine, and Roler.

SATURDAYS. CLINICS. Every Saturday.

At Chicago College—2 P. M., *Surgical*, Prof. Andrews or Isham; *Gynecological*, Prof. Nelson; 3 P. M., *Medical*, Prof. Davis.

At Rush College—2 P. M., *Surgical*, Prof. Gunn.

LECTURES. Every Saturday.

At Rush College—9½ to 12½, Profs. Miller, Lyman and Etheridge. At Chicago College 8½ to 11½, Profs. Hollister, Quine and Hyde; 3 to 6, Profs. Curtis, Andrews and Quine and Byford.

At all the above named Clinics visiting regular practitioners are, we believe, admitted.

At the South Side Dispensary (Chicago College) there are six daily special Clinics, for sections of the classes of the Chicago College.

[The schedule of the Woman's Medical College 'had not been received on going to press.—Ed.]

THE

Chicago Medical Journal

AND

EXAMINER.

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Original Communications.

FURTHER REMARKS ON TUMOR OF THE STERNO- MASTOID MUSCLE.

BY A. REEVES JACKSON, A.M., M.D.,

SURGEON-IN-CHIEF OF THE WOMAN'S HOSPITAL OF THE STATE OF ILLINOIS; LECTURER
ON DISEASES OF WOMEN. RUSH MEDICAL COLLEGE. ETC.

(Read before the Chicago Society of Physicians and Surgeons, June 12, 1876.)

At a meeting of this Society, held September 27th last, I presented the history of a case of tumor of the sterno-mastoid muscle of the right side, occurring in an infant soon after birth; and, at the same time, I called attention to a similar case which had been brought to the notice of the London Pathological Society by Dr. Frederick Taylor.*

Although several of the members of the London Society spoke as though they were more or less familiar with the disease mentioned by Dr. Taylor, I found that the literature of the subject was extremely meager; indeed, I could find no mention whatever of it in any systematic work to which I had access. Subsequently I found in the reprint of the London

* See this Journal, November, 1875, p. 820.

Lancet for 1863, p. 262, an account of a few cases, and I have thought that it might be of interest to bring them before the Society. Three of these cases were seen by Dr. Wilks. at the Royal Infirmary for Children, Waterloo Road:

CASE I. Was a female child seven weeks old. On examination a hard cord-like substance could be felt running in the direction of the sterno-mastoid muscle of the right side. Bending the head forward did not relax it, but caused it to be more readily grasped, and it was then found to be the muscle itself which was indurated. No enlarged glands were present. The child was healthy, and presented no appearances of syphilis. Mercury and chalk were administered, and an ointment of iodide of potassium was applied to the tumor. At the end of six weeks the hardness was fast disappearing.

CASE II. Male child, nine weeks old. The mother had noticed a hardness on the left side of the neck ever since birth. There was a hard substance corresponding in form and position to the sterno-mastoid muscle. It felt as if the muscle was changed into wood fiber. The child was healthy; there was neither syphilitic symptom or history.

It seems probable that, as the tumor was observed immediately after birth, it may have occurred in utero. The hardness disappeared under the use of iodide of potassium ointment, although Mr. Wilks thought that it might have done so spontaneously.

CASE III. The notes of this case were lost, but it was that of an infant a few weeks old, who had a similar hardness of the muscle of the right side, which was disappearing when last seen.

In the same volume I also found recorded two cases which came under the care of Mr. Paget, at St. Bartholomew's Hospital:

CASE I. A well-formed healthy child when two weeks old was observed to have two or three intensely hard lumps in the middle three-fourths of the left sterno-mastoid muscle. They felt like extreme induration of its substance, with enlargement. They were irregularly spheroidal, flattened and nodular. The muscle could not be fully lengthened, and the face could

not be turned to the right side, although there was no wry-neck. It was thought that the disease was congenital.

The case was treated with iodine frictions and with small doses of iodide of potassium and cod liver oil. A year later the induration was scarcely perceptible, but the mastoid felt small and tough.

CASE II. In this case the child, likewise healthy, was two weeks old. A flattened lump about three-quarters of an inch in diameter involved the anterior part of the middle of the sterno-mastoid. The occasional application of iodine constituted the only treatment. In less than six months the swelling had almost disappeared.

Still another case is mentioned by Dr. Wm. J. Harris, in the *Lancet* for 1863, p. 421. The presentation at birth was a footling, which was afterwards found to be complicated by the funis twice encircling the neck. On the following day an unnatural hardness was felt on the right side of the child's neck, and a close examination showed that it was due to an induration involving the middle third of the sterno-mastoid muscle. The swelling was not noticeable when the face was directed straight forward, but when it was turned to the left side the hardened muscle could be plainly seen and was easily grasped.

A few days ago Dr. C. Paul Simon, a member of this Society, was kind enough to furnish me with a translation of a recent article by Blachez, in the *Gazette Hebdomadaire*, March 29, 1876, on a "Variety of Tumor of the Cervical Region in newborn Children," as follows:

"Last year, at the dispensary of l'Hôpital des Enfants, I had an opportunity of observing a peculiar kind of tumor of the neck, the nature of which at first sight seemed to me to be very obscure. Through a singular coincidence, two children affected with the same disease were presented to me at an interval of a few days, and within the same year we were able to collect a third observation. The particular conditions in which these children were found at the time of birth satisfied me very soon as regarded the pathogeny and nature of the tumors. I suggested to M. Planteau, my house surgeon, to

make some researches on the subject, and to collect any analogous facts which might be found in the various French and foreign publications."

The results of M. Planteau's investigations are as follows:

"The three children which I have observed presented on the right side of the neck, in the thickness of the sterno-mastoid muscle, a tumor, hard, elastic, ovoid, non-fluctuating, producing very little pain, of the size of a pigeon's egg. This tumor had not been observed by the parents until two or three weeks after birth. Their attention was attracted by an inclination (sinking) of the head towards the right shoulder and rotation of the face towards the opposite side. The tumor was seated in the right sterno-mastoid muscle. The skin was of normal color, or a little roseate. When the chin was raised it was easier to form an idea of the tumor, which then resembled a strongly inflated spindle. On one of the children the muscle presented, besides, in the beginning of the disease, some small lumps on its middle portion. When the muscle was contracted the tumor was immovable; on the contrary, it was slightly movable when the muscle was relaxed. The muscle was entirely indurated in its middle part, but the induration of the lower half was most marked in the sternal fasciculus. The skin was not adherent to the tumor, and was not inflamed. There was no pain when the part was at rest, and the movements of the neck seemed to be but little interfered with. However, the child screamed when the tumor was pressed upon or the muscle contracted. These pains are most evident in the early days of the disease.

"It is difficult to completely straighten the head. Its sinking on the right side, and the rotation of the face towards the left, show that the sternal fasciculus is the part most affected. None of the children had syphilis. Two of them appeared perfectly healthy.

"We had no opportunity of making an anatomical examination of these tumors. We found in a case reported by Dr. Frederick Taylor* a notice on the composition of a tumor

* Loc. cit.

which seems to me to be analogous. The sternal extremity of the muscle was the portion principally indurated, and although presenting to the naked eye the characters of normal tissue, under the microscope the presence of a white fibrous tissue was manifest, its bundles separating the muscular fibers, which were intact. It was, apparently, a fibrous product, originating in the interstitial connective tissue, the result of an inflammation, the origin and growth of which we have now to study.

"Under the influence of contusions, frictions or tractions we know that a muscle may become the seat of an inflammatory process which, in a chronic stage, may result in fibrinous exudation.

"The circumstances under which these tumors are produced confirm these anatomical data. The three children were born in breech presentation. The extraction of the head lasted half an hour in the first; in the others long and energetic traction was used. The second was apparently dead when born.

"The tumor did not show in the first days of life, and was manifest only after a fortnight or three weeks. We could not learn anything about the position of the head, but it is well known that at the time of its expulsion the face is usually turned toward the sacrum.

"There seems to be an evident relation between the breech presentation, the violence used for the extraction of the head, and the nature of the lesion which we have described. This lesion is apparently the result of the twitching (jerking?) of the fibers of the sterno-mastoid muscle, determined by the traction exercised by the operator. Following this twitching, the muscle is the seat of an inflammation which results in the production of the fibrous interstitial tissue which forms the tumor. We say twitching, and not rupture of the fibers, because in the case in which an anatomical investigation was made the muscular fibers seemed to be intact. Besides, had a rupture existed, there would certainly have been an interstitial effusion of a certain quantity of blood, and the tumor would have been manifest a short time after birth. But, as we have already observed, its appearance was noticed only at a much more remote epoch, an interval necessary for the production

of fibrous elements, the organization of the exudation and its growth.

"As a last proof, I may allude to the seat of the tumor, which, in our patients, was found always in the *right* sterno-mastoid muscle. If we consider the circumstances in which the head was extracted, the explanation is easily found. When the body is expelled, and the head remains in the pelvis with the face turned backwards, the right side of the child answers to the right hand of the operator placed in front of the woman; the operator supports the trunk of the child on his left hand and forearm, while with the right on its back he makes a few tractions. If the head does not come down, he introduces the right forefinger into the mouth of the child in order to move the chin. If this be done by a skillful operator, the twitching of the muscles on both sides will be equal; but if the operator be inexperienced, or over anxious to aid the delivery, he will endeavor to extract the head by means of energetic tractions rather than choose the most favorable position for the extraction. Without great care, it follows that traction will bear much more on the right side, and that the sterno-mastoid muscle of this side will be twitched and bruised. Besides, the neck being overstretched, the sternal bundle will be affected in particular."

The following are the conclusions at which the author arrives:

1. After the extraction of the child in pelvic presentations, one may see grow on the sterno-mastoid muscle tumors which seem to be of a fibrous nature.
2. These tumors are due to an interstitial myositis produced by exaggerated traction exerted on the sterno-mastoid muscle.
3. They are more frequent on the right side, apparently because of the habitual position of the fœtus in pelvic presentations.
4. These tumors do not bear any relation to syphilis.
5. They do not seem to have any grave character, although they are a long time in disappearing.

The foregoing cases, together with those formerly presented to the Society, and which have already been alluded to, are all

that I have been able to find. With a single exception, in none of them was there any good reason to believe that a syphilitic taint had been inherited from the parents. Mr. Tatum, however, in an article on Affections of the Muscular System, in the third volume of Holmes' "System of Surgery," although he makes no allusion to the disease in children, states that the sterno-mastoid muscle is frequently affected in adults from syphilis, and he gives several cases in illustration.

Finally, in the *Gazette Hebdom.*, March 26, 1876, a case of tumor of the sterno-mastoid of the left side is reported by Dr. Pératé, in which the presentation was the first position of the head, and the labor terminated by forceps.

THE TRUE SITE AND THE PROBABLE CAUSES OF PLACENTA PRÆVIA.

By JOHN BARTLETT, M.D.

(Read before the Chicago Society of Physicians and Surgeons, Dec. 27, 1875.)

By many, if not all, writers the site of the placenta, in placenta prævia, is, as I believe, erroneously given, and the cause of its abnormal position is shrouded in too deep an obscurity. The present paper is an attempt to show that there is nothing very singular in the location of the presenting placenta, and that this malposition is one of the simplest *errores loci* of the ovum.

In considering the subject I shall first point out what, with due deference to the great obstetrical teachers, with whose works I am familiar, I view as a gross misconception in regard to the anatomical site of the placenta in placenta prævia.

The first obstetrician who recognized this condition was Portal; writing in 1672, he says: "I found the after burden just before and quite across the whole *inner* orifice." In 1730 Giffard writes: "I found the placenta closely adhering around the os *internum*." Says Smellie, in 1752: "The edge or middle of the placenta sometimes adheres over the inside of the os *internum*." This view of the location of the pla-

centa prævia, namely, over and above the os internum, has received, so far as I am informed, the unanimous endorsement of writers; among whom I may mention such as memory recalls, Rigby, Ramsbotham, Burns, Barnes and Leishman; Dubois, Chailly, LaChapelle and Cazeaux; Naegele, Stoltz, Siebold, Grenser and Kolb; Dewees, Meigs and Thomas.

Of all writers, however, no one is so emphatic in his endorsement of the relation of the placenta to the os internum, as first given by Portal, as Cazeaux. He even adopts a new phraseology; his expression for P. prævia being: "The insertion of the placenta upon the lower segment of the uterus." And in beginning his chapter on the treatment, he calls the attention of his readers to what he considers the true anatomy of the cervix, up to two weeks of term, repeating his well known opinions, that up to that period the neck is entirely undeveloped, and has taken no part in forming the cavity of the uterus. He says it is not because the after birth is implanted over the cervix that a flooding takes place during the latter months of pregnancy, but because it is in relation to the inferior third of the uterus. In the opinion of the mass of obstetrical writers then, the site of the placenta when prævia is *above the os internum*. This I regard as a great error. The placenta, in placenta prævia centralis, according to my views, is *below the os internum*. It rests upon the lower portions of the developed infra- and supra-vaginal portions of the cervix, and is therefore situated *between* the os externum and internum, above the one and below the other. And its presence in this locality is easily accounted for. Observation teaches that while some portion of the fundus uteri is the locality intended by nature for the rest and growth of the ovum, there is no vital or mechanical necessity that it should grow there, and there only. On the contrary, at what spot the ovulum shall rest and take root seems, in no small degree, to be left to chance. Thus, it may remain in the ovary, or it may develop in any portion of the fallopian tubes, or even outside of the containers intended for it, in the general cavity of the abdomen.

It is generally believed that an ovule which meets no fecun

dating fluid, passes through the uterine passages out of the body. Now, I regard placenta obvia as what Cazeaux, with his ideas as to what constitutes the uterine cavity proper during pregnancy, might view as an extra-uterine fœtation. It is a case in which the ovum has passed through the cavity of the uterus, and lodged and developed in the cavity of the neck. We may suppose the ovum to have been impregnated at the usual locality, in the ovaries, and to have escaped lodgment till the cervix was reached, or we may conceive that it had proceeded as far outward as the cervical cavity before impregnation, or perhaps an ovulum which had but just taken root in the body of the uterus, may have been expelled from that cavity, and have replanted itself within the cervix.

It may be stated, as an objection to this theory, that the ovule passing toward the uterus, from the fallopian tubes, would be estopped from entering the uterine cavity proper by the decidua reflexa of Hunter. I beg leave to call the attention of any member, who may have failed to note the advances in the study of the physiology of the impregnated uterus, to the fact that it is now generally conceded that the fallopian tubes are not occluded by the decidua, and that the ovum enters the uterine cavity uncovered by this membrane, and is so far free to pass on through the os interum.

Once in the cervix, the manner in which the ovum engrafts itself on the walls of that canal may be supposed to determine the form of the subsequent placental attachment ; thus, if it grow to one circumference of the tube there will result a placenta lateralis, more or less pronounced, according as the arrest of the egg takes place, at a lower or higher point in the cavity of the neck. If the ovule attach itself to the entire circumference of the cervical canal, there results a placenta centralis.

There are two striking facts in the history of placenta prævia which demand consideration in estimating the value of any theory of its causation, namely ; first, a tendency to the recurrence of the accident in certain women ; second, the occasional apparent *prevalence* of the condition. Instances

have been noted in which placenta oblata has occurred in the same patient in two, three, or ten successive pregnancies. Cases seem occasionally to occur *en masse*, so as to lead some writers to speak of the abnormal presentation of the after-birth as almost epidemic. For example, in the early practice of Prof. W. H. Byford no cases occurred for a series of years, when he was called in one night to three cases. The two circumstances just stated, in the record of the anomaly under consideration, indicate that among its causes is some condition peculiar to the individual patient; as well as an influence competent to affect a community. The condition peculiar to the woman might be, among others, the character of the membrane of the uterus, permitting the easy passage over it of the ovum, coupled with a patency of the os internum, or a degree of irritability of the body of the womb sufficient to thrust the ovule onward. Possibly, in some cases the individual susceptibility might be found in the habit of avoiding sexual intercourse for a sufficient number of days after menstruation, to permit of the arrival of the egg in the cavity of the neck before impregnation. Among the agencies competent to affect numbers of women might be considered any cause capable of exciting an unusual uterine irritability. It is well known that in times of general excitement, anxiety and alarm, as during the siege of a city, abortions and miscarriages are so frequent as almost to be considered epidemic. *A fortiori*, a similar influence might result in the extrusion of the ovum from the contractile uterus to rest in the less unquiet neck.

If the theory of the fore-coming after birth here set forth be correct, it might reasonably be expected that the development of the ovum, at so low a point in the womb, would give rise to certain peculiarities by which the existing condition might be recognized. Thus, Cazeaux states that a case of placenta prævia was diagnosed at five months on account of the whole pelvic circle, as felt within the vagina, being filled with a substance having a soft feel, like that of the uterus at three months. In a case of placenta prævia, recently occurring in my practice, I was consulted a number of times from the fifth

to the seventh month, on account of the very low position to which, I was told, the womb had fallen. At the seventh month the vulva was pressed upon and somewhat dilated. At seven and one-half months, however, when an opportunity to see the patient was had, I was told that the uterus had lately risen, and was then giving no trouble. In this case it is probable that an early examination would have revealed such a condition of the parts as might have led to a correct diagnosis.

Madame LaChapelle is quoted by Cazeaux as recognizing, in several instances, an intra-cervical variety of placenta prævia. Leishman quotes Tyler Smith as saying that the impregnation of the ovule may take place as low in the uterus as the cervix. Dr. Smith, while he uses the language quoted by Leishman, does not seem to speak of the ovule developing in the cervix as Leishman supposes. The latter, however, seems to have conceived the idea of such development from Dr. Smith's language, and he accepts the theory of the growth of the ovum within the cervix as a satisfactory explanation of the phenomenon of placenta prævia. It must be borne in mind, however, that Dr. Leishman, even while he receives the intra cervical growth of the ovum as explanatory of the existence of placenta prævia, never seems to conceive of the placenta when prævia in any other position than out of that cavity, to-wit: above the os internum.

To a full and consistent adoption of the intra cervical theory of placenta prævia here given, it is essential that the premises of that theory shall be accepted, and that the placenta shall not at one moment be referred to as within the cervix, and in the next sentence be located above the os internum.

In my opinion the subject will never be properly understood till the anatomy of the neck of the uterus, before, during and after labor, as commonly received, with all its glaring inconsistencies, be entirely abandoned, and juster conceptions of the true part which the cervix uteri, the os internum and the os externum play in parturition, in labor and in involution, be better understood.

HYDRATE OF CHLORAL POISONING.

By J. H. W. MEYER, M.D., Cook County Hospital.

On the 7th of August, 1876, Miss Lizzie King, patient in Cook County Hospital, appropriated the ward bottle containing, in an eight ounce solution, one ounce of hydrate of chloral and two ounces of bromide of potassium. This she took with suicidal intent, leaving only a drachm or two of the solution in the bottle. Dreading the result she tried to keep awake. When she took the medicine she was in the bath room, where, some ten minutes after, a patient noticed her drowsiness. In about five minutes more another patient found her fast asleep. On lifting her up, the empty ward bottle was found about her person, and the case reported at the office.

I found her in a comatose condition, breath smelling strongly of chloral, pupils contracted, extremities cold, pulse less at the wrist, heart's action very feeble, reflex irritability almost lost, and general sensation diminished. All ordinary efforts failed to awaken her.

I administered thirty grains of sulphate of zinc followed by draughts of warm water containing mustard. As no efforts at vomiting were noticeable, I irritated the palate by the introduction of the finger, reaching down as far as possible; still no result. The stomach tube was now introduced, and, connecting it through rubber tubing with a bag full of warm water (the bag being a part of Dr. Potter's universal syringe), the stomach was filled with the water by holding the bag a foot or more above the head, and again emptied by lowering it. As the bag was emptied the water smelled of chloral; therefore this process was repeated about four times, till the water on its return had no smell of chloral. She then made an effort to vomit. Before the tube was removed some whisky was introduced through it into the stomach. During this time her condition had somewhat improved. Pulse could be felt at the wrist, and the pupils began to dilate. As she was still

unconscious, recourse was had to the cold douche, the water being poured from a height of several feet upon the head and abdomen. Soon she tried to avoid the water, but still slept on. After this treatment had been continued about ten minutes she so far aroused as to beg to be let alone, but still slept. After this she was rubbed vigorously with coarse towels till the skin became warm, when she was put to bed, a drachm of the aromatic spirits of ammonia administered and efforts continued to awaken her. After this she opened her eyes, but soon relapsed into her former condition. I then applied the battery, passing strong currents through the extremities. This so far aroused her, that she attempted to answer questions, in a very incoherent manner, however. After about three hours from the time she was found asleep, I considered her out of danger; but as she would still fall asleep when undisturbed, I repeated the dose of spirits of ammonia, and charged the nurse to watch her closely and to arouse her at short intervals by rubbing and shaking. On the morning of the 8th she felt about as well as she did before taking the medicine, but remembers nothing of the treatment.

CASE II. Mr. S. was found in his bed on the morning of the 8th of August, 1876, in an insensible condition. An empty bottle, labeled hydrate of chloral, being found near, he was sent to Cook County Hospital as a case of chloral poisoning. On his arrival he was found comatose, but no other alarming symptoms were present. No efforts were made to empty the stomach, the chloral having undoubtedly been taken several hours previously and, being rapidly absorbed, we did not suppose any present in the stomach. During the day stimulants were administered, such as whisky and aromatic spirits of ammonia, under belief that the effects of the chloral would gradually pass away, as it was eliminated by the lungs and other emunctories. It was impossible to get any history from him during the day. Being still in nearly the same condition in the evening recourse was had to energetic treatment, beginning with flagellations. This aroused him so that he answered several questions, stating that he had taken half an ounce of hydrate of chloral with intent to kill. Could not then

remember how long since he had taken it. In answering questions he seemed to forget the answer, but on urging, after several trials, would finish a sentence, falling asleep after uttering a few words. To avoid injuring the skin the cold shower bath was substituted for the flagellation, which decidedly improved his condition, so that with assistance he walked from the bath room to his bed. As he was inclined to relapse and to secure the advantage gained, recourse was had to the battery, which stimulated him very materially. All day it was impossible to get him to swallow any nourishment, but now he took a cup full of milk punch. Being a great deal better he was left to rest for the night.

On the morning of the 9th he was still under the influence of the chloral, and answering questions slowly. From this time on his recovery was satisfactory. On the 10th he stated that he had taken the chloral on the evening of the 7th, at eight o'clock, and that he did not remember anything from the time he went to sleep on the 7th till he was aroused the evening of the 8th by the flagellations, bath and battery.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES, COMPARED WITH THAT OF OTHER REGIONS.

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(Continued.)

OTHER AMPUTATIONS OF THE FOOT.

I have included these all in a single table, which is here subjoined:

TABLE XI.

AMPUTATIONS THROUGH TARSUS AND METATARSUS IN LAKE STATES, (EXCLUDING PIROGOFF'S AND SYME'S.)

No.	OPERATOR OR REPORTER.	Age.	CAUSE OF OPERATION.	COMPLICATIONS.	OPERATION.	Con- diti'n	Time of operation	Result.	Time to death or recovery	Practice.
6654	Dr. E. Andrews	24	Crushed toes		In metatarsus	Good	12 days	Recov'd	6 weeks.	Hospital.
5129	"	"	Both feet frozen.		At juncture of tarsus and metatarsus of both feet	"	Second y.	"	3 mos.	"
	"	"	Fracture of both feet		in tarsus of both feet		"	"	"	"
	" Hyde	32	Feet frozen.	None	Joined tarsus & metatarsus	Med	"	"	1 month	"
	" E. Owens	"	"	"	Chopart's in one foot and Heys in the other		"	"	"	"
	" H. Wardner	24	Frost bite	Drunk	Both feet through metatar.	Bad	Primary	"	3 mos.	Private.
	"	18	Foot crushed	None	Chopart's	Good	"	"	4 "	"
	"	16	" " on R. R.	Consider'ble shock	"		"	"	5 "	"
	"	12	" " "	"	"	Med	"	"	6 "	"
	"	30	Feet frost bitten and mortified.		Metatarsus of one foot and all the toes of the other		"	"	"	"
	" E. D. Kittoe	22	Foot cut off by axe	Great shock	Chopart's	Bad	8 days	Died	3 days	"
	"	23	Foot crushed by stone.	Up. & lo. jaws fract.	"	Med	3 days	Recov'd	"	"
	" J. Andrews.	30	Wound of dorsal artery of foot.	Caries of foot.	"	Bad	6 hours	"	"	"
	" E. W. Lee.	19	Foot crushed by R. R.	None	"	Good	Second y.	"	4 weeks.	"
	"	18	" " "	"	Metatarso-phalangeal arti- culation		4 hours	"	"	"
	" S. Marks	24	" " "	"	Chopart's	"	3 hours	"	5 "	Hospital.
	"	31	" " "	"	"	"	Primary	"	2 mos.	Private.
	"	"	" " "	"	"	"	"	"	3 "	"

RECAPITULATION.

	CASES.	DIED.	PER CENT. MORTALITY.
Total of all kinds.....	17	1	6
Total Chopart's amputation.....	10	0	0
Chopart's primary	7	0	0
" intermediary and secondary	3	0	0
Junction of tarsus and metatarsus.....	3	0	0

CHOPART'S AMPUTATION ABROAD.

The few published statistics of this operation are imperfectly classified. Of 101 cases of all kinds, sixteen died, which is about sixteen per cent., while of our ten cases recorded in the Lake States none died.

OPINIONS OF AUTHORS.

As above stated. Demme, Stromeyer and Legouest show military statistics to the effect that in compound gunshot fractures of the foot, conservative treatment is better by a large figure than any amputation.

Holmes' System of Surgery, Vol. V., p. 642, says Chopart's amputation is "undesirable," on account of the tendency of the stump to point its extremity too much downward.

Erichsen, Vol. I., p. 73, thinks that Hey's amputation at the tarso-metatarsal articulation is often not desirable, and prefers if possible to saw through the metatarsals in front of the joint. In respect to Chopart's amputation he, contrary to Holmes' opinion, says that the stump is excellent, and that if it points too much downward it should be remedied by division of the tendon of Achilles. He advises to saw off the head of the astragalus, and the articular surface of the os calcis.

GENERAL EFFECTS OF AGE, SEX, TIME OF OPERATION, AND PATHOLOGICAL CONDITION ON THE MORTALITY OF AMPUTATIONS.

These topics are as yet very imperfectly investigated, owing to the present rude condition of the science of statistics. Some dim light, however, has been thrown on them.

AGE.—Malgaigne's statistics of the Hospitals of Paris give the following conclusions:

1. Under five years of age the mortality of amputations is more than between five and fifteen years.
2. From five to fifteen years is the most favorable age.
3. From fifteen to twenty years the risk increases.
4. From twenty to fifty years it remains nearly stationary, but increases again after fifty. (*Dictionnaire des Sciences Médicales.*)

Mr. Callender, of St. Bartholomew's Hospital, London, says that in that institution the death of a child or of a patient under the age of forty is an exception, and that age increases the tendency to death.

From 1853 to 1863 the mortality of primary amputations all ages was less than ten per cent., while of ten cases over sixty-five years of age, sixty per cent. died. The experience of St. Bartholomew's Hospital is very valuable, because it is of all the hospitals in the world perhaps the most free from septic hospital contamination. (*Med. and Surg. Trans.*, Vol. XLVII., p. 75, 1864.)

It is probable that amputation at the hip joint, and at the upper part of the thigh, will be found to undergo a great increase of danger at the age of puberty, when the pelvic organs assume their adult development. This rule probably applies to all operations and injuries to the pelvis and the parts immediately adjacent.

SEX.—The opinions and figures on the influence of sex are in utter contradiction to each other, showing the present unfinished state of our knowledge on plain points which ought long ago to have been well settled. The *Dictionnaire des Sciences Médicales*, in the article on amputations, says that women bear amputations better than men, and cites in proof, the statistics of Newcastle, Glasgow, Edinburgh and Paris, summed up as follows:

	CASES.	DIED.	PER CENT. MORTALITY.
Amputations in males.....	1244	441	35
“ in females.....	284	83	29

On the opposite side, Mr. Callender (*Med. and Surg. Trans.*, Vol. XXXIII.—No. 11. 2

1864,) says that the mortality of the operation among women is worse by fifty per cent. or more than among men.

Schmidt's *Jahrbücher* says that at Jenna the mortality of certain amputations was $21\frac{1}{2}$ per cent. worse among the women than among the men.

There is no reconciling such absolute contradictions. All we can say is that at present the influence of sex on the mortality has not been properly determined.

TIME OF OPERATION.—Here we are met again with irreconcilable contradiction. Dr. Ashurst, of Philadelphia, has tabulated in his *Surgery*, p. 110, 2,201 cases from the civil hospitals of both continents, showing primary amputations of all kinds as having a mortality of 32 per cent., and secondary ones of 50 per cent. The statistics of military amputations in the Crimean and American wars show a similar result.

On the other hand, the *Dictionnaire des Sciences Médicales*, tome III., p. 770, gives figures which foot up as follows:

	CASES.	DIED.	PER CENT. MORTALITY.
Primary amputations of all kinds.....	5599	3164	56.51
Secondary " " ".....	2265	1290	56.95

These statistics show the primary and secondary cases to have almost exactly the same mortality.

The usual assertion of authors is that, in general, primary amputations are safer than secondary, but that at the hip and in the upper half of the thigh secondary ones are the safest.

The greater danger of primary than of secondary amputations at the hip and upper part of the thigh, is established, at least in adults. It is not proved, nor provable in children, who bear operations about the hips much better than adults; but the vast mass of figures above quoted show that, taking all kinds together, primary amputations have scarcely a shade of superiority over the secondary, a result in bold contradiction to the opinions taught by nearly all authors.

INTERMEDIARY AMPUTATIONS.—Military surgeons divide the cases ordinarily called secondary into two parts, those per-

formed after the first 24 hours, and before the establishment of free suppuration, being separated from the remoter secondary, and termed *intermediary*. These are considerably more fatal than either primary or secondary operations, except in the case of the hip joint. At that articulation every stage is safer than the primary.

The underlying principle appears to be that the presence of acute inflammation is a source of greatly increased danger, and large operations should be avoided if possible during its existence.

PATHOLOGICAL CONDITION.—Here is a wide field of investigation, which has been only imperfectly explored. Traumatic amputations on the average are much more fatal than those performed for disease. Ashurst's table (Surgery, p. 109,) collates over 4,000 cases of all kinds, and gives,

Mortality of traumatic amputations. . . . 41 per cent.

“ “ pathological “ . . . 30 “

But all traumatic cases are not alike. Those which have produced a chronic trouble of many months' duration, often become to all intents and purposes like pathological cases.

In suppurating knee joints, both traumatic and pathological, the acute stage of the inflammation is an excessively dangerous time for amputation, and is to be avoided by all possible means.

Amputations of “complaisance,” or “expediency,” so-called, that is, amputation of members otherwise healthy, but simply deformed, though technically classed as pathological, have not the safety of other pathological cases. Their rates of mortality are almost the same as those of traumatic cases.

Cancer, necrosis, caries of joints, etc., are pathological conditions often demanding amputation, and the danger of one perhaps differs from that of another, but the literature of the profession gives only an obscure light respecting it. At present we know little of the difference, but only the general fact that taken together, amputations for these causes are much safer than those performed for traumatic causes.

FLAP OR CIRCULAR OPERATIONS.—Efforts were formerly made to show statistically an advantage of one or the other

methods, but the results were contradictory, and with the multiplication of new plans the old discussion between the advocates of flap and circular amputations died out, without any decided superiority being shown for either. At the present day surgeons selecting one or the other method, do it on other grounds than any supposed general difference of mortality between them.

INDICATIONS FOR AMPUTATION.—The Dictionnaire des Sciences Médicales (Article Amputation,) sums up the indications with excellent judgment, and substantially as follows:

Pathological Causes.—1, irremovable cancer; 2, diseases of bones not otherwise removable; 3, caries of joints after white swelling (this does not always require it); 4, diffuse aneurism, threatening gangrene, not amenable to ligation; 5, other aneurisms disorganizing parts too seriously to admit of cure by ligation, etc.

Traumatic Causes.—6, tearing off of limbs; 7, crushing of both bones and soft parts to disorganization; 8, comminuted fractures, with destruction of the great nerves at the root of the limb; 9, wounds of large joints not admitting of resection and extensive injury of coverings; 10, compound dislocations with great destruction of soft parts and principal vessels; 11, very destructive burns; 12, traumatic gangrene.

Surgeons should carefully avoid the vulgar error of being influenced by the external appearance of the wound, instead of the condition of the parts, and the state of the innervation and circulation.

RESECTIONS.

Of these important operations I find a considerable number of records, several of which are derived from a valuable report of Dr. Henry Lyster to the Michigan State Medical Society:

TABLE XII.

EXCISIONS OF LARGE JOINTS AND BONES IN THE LAKE STATES.

NO.	OPERATOR.	REASON FOR OPERATION.	COMPLICATIONS.	OPERATION.	Cond. at opr.	Time to Operation.	Result.	Time to death or recovery.	Practice.
7054	Dr. E. Andrews.	14 Caries of ankle.	None	Excision of ankle	Good	several yrs.	recovered		Hospital.
7510	"	55 Deformity of ankle fr. injury	"	" elbow	"	primary	"		Private
7512	"	40 Comp. fracture of elbow	"	" ankle	"	2 years	"		"
	"	7 Caries of ankle.	"	" knee	Bad.	2 weeks	died	10 days	"
6461	"	45 Caries of knee (recent).	"	" shoulder	Med.	some mos.	recovered		Hospital.
518	"	25 " knee	"	" knee	"	2 years	"		"
	"	23 " shoulder	"	Exc. up. 3½ in. humerus	"	2 years	failed		"
5541	"	" knee	"	" of knee	"	some mos.	recovered	some mos.	"
6682	"	19 tarsal bones	"	" of ant. tarsals	Good	congenital	"		"
483	"	27 Talipes vari.	"	" of ankle	"	6 years	died	4 weeks	"
1977	"	22 Hip dis. and caries of ankle	Abscess at ankle.	" head of femur	Bad.	secondary	recovered	8 mos.	Private
	"	20 Caries of ankle after fract.	None	" of ankle	"	some mos.	"		Hospital.
374	"	11 Hip disease and caries	Tuberculous family	" head of femur	"	7 years	died	2 years	Private
648	"	" "	None	" head and part trochanter of femur	"	2 years	"	10 mos.	Private
662	"	" "	None	Exc. head of femur	Good	2 years	recovered	8 mos.	"
649	"	6 Hip disease, carious	None	" part of trochanter	"	2 years	"	4 mos.	"
661	"	" "	Cachexy following diphtheria.	Exc. head of femur and	Bad.	1 year	died	4 weeks	"
536	"	6 Hip disease, carious	None	Exc. head of femur	Med.	6 mos.	recovered	7 mos.	Hospital.
5688	"	25 Hip disease, carious	None	" 2 in. of trochanter	"	several mos	died	5 days	"
	Dr. J. S. Sherman	18 " "	"	Exc. head of femur	"	3 years	"	4 mos.	Private
	" Bogue,	26 " "	"	Exc. hd. fem. & trochant.	"	9 mos.	"	4 mos.	Hospital.
	" D. Brainard	8 " "	"	Exc. head of femur	"		recovered		Private

RECAPITULATION.

	CASES.	DIED.	PER CENT. MORTALITY
Resection of the shoulder joint.....	5	0	
“ “ elbow “.....	2	0	
“ “ hip “.....	19	8	42
“ “ knee “.....	8	3	37
“ “ ankle “.....	9	1	11
“ of other parts.....	8	1	12
Totals.....	51	13	25

PRIMARY RESECTIONS OF THE SHOULDER JOINT ABROAD.

AUTHORITIES.	CASES.	DIED.
Med. and Surg. Hist. War of Reb'n, part II., vol. II. p. 599..	515	160
St. George's Hosp., London.....	1	1
Circular No. 6, Surg. Gen. U. S. A.....	210	50
Gant's Surgery, p. 672.....	59	18
Chisholm's Mil. Surg., Confed. Amer. Army.....	41	13
Deutsch. Zeit. Chir. Bd. 1, 2 und 5.....	15	8
Jahresbericht gesammt, Med. Bd. 2, p. 874.....	1	1
Warren's Surg., Confed. Amer. Army.....	3	1
Totals.....	845	252

Mortality of primary cases, 30 per cent.

INTERMEDIARY RESECTION OF THE SHOULDER ABROAD.

AUTHORITIES.	CASES.	DIED.
Med. Surg., Hist. Rebellion, part II., vol. II., p. 599.....	120	104

Mortality of intermediary cases, 46 per cent.

INTERMEDIARY AND SECONDARY CASES COMBINED; ABROAD.

AUTHORITIES.	CASES.	DIED.
Med. and Surg. Hist. War of Reb'n, part II., vol. II., p. 599..	316	131
Gant's Surgery, p. 672.....	34	6
Chisholm's Mil. Surg. Amer. Confed. Army.....	29	7
Warren's Surgery, “ “ “.....	2	1
Arch. klin. Chir., Bd 10 und 13.....	4	1
Deutsch. Zeit. Chir., Bd. 1, 2 und 5.....	49	13
Billroth's Briefe.....	6	2
Dr. Herrgolt, Seige of Strassburg.....	3	1
Totals.....	443	162

Mortality, 37 per cent.

PATHOLOGICAL RESECTION OF THE SHOULDER; ABROAD.

AUTHORITIES.	CASES.	DIED.
Gant's Surgery, p. 657.....	80	15
Archiv. klin. Chir. Bd. VIII., S. 106, Bd. X., S. 892, 1893.....	9	2
Deutsch. Zeit. Chir. Lücke, Bd. II., S. 380.....	6	1
Statist. des Hôp. de Paris,.....	1	0
Totals.....	96	18

Mortality, 19 per cent.

CONDITIONS IMPERFECTLY STATED; ABROAD.

AUTHORITIES.	CASES.	DIED.
Otis' collection of foreign military cases, Med. and Surg. Hist. War of Rebellion, part II., vol. II., p. 607.....	378	156
London Hosps.,.....	8	2
Trans. Ill. State Med. Society, 1863.....	6	1
Bericht k. k. allg. Krankenhaus, Wien.....	6	4
Archiv. klin. Chir. Bd. VIII., Bd. X., Bd. XI.....	28	9
Heyfelder Lehrbuch Resektionen, p. 210, being cases of Jägers, Paulo, Baudens, Esmarch, Ritter, Beith, Black- man and G. Meyer.....	169	30
Totals.....	595	202

Mortality, 34 per cent.

SUMMARY.

	CASES.	DIED.	PER CENT. MORTALITY
Total resections of shoulder abroad.....	1979	634	32
“ “ “ in Lake States.....	5	0	0

OPINIONS OF AUTHORS.

Gant's Surgery, p. 656, advocates resection of the shoulder in destructive diseases of the articulation.

T. Holmes, Syst. of Surgery, Vol. V., p. 664, says this operation is to be preferred to amputation in gunshot fracture and compound dislocation of the joint, when the injury is not too extensive, and is the only operation admissable in chronic disease of the joint, except perhaps rapidly growing tumor of the head of the bone, when he prefers amputation.

Billroth in his Surgical Pathology, p. 472, says it is safer than amputation,

Dr. Hodges, of Boston, in his excellent monograph says the results are excellent, but that the limb resulting being no better than that after natural ankylosis, the operation is not to be performed when there is good chance of natural recovery.

T. Holmes, of England, repeats the same opinion.

Bryant, of London, and Woodward, of Washington, (Cir. No. 6, S. G. O.) praise the operation, but Bryant's quotations of Cir. No. 6 are very inaccurate as to this point.

Ashurst says it ought not to be done for malignant disease.

The other authors for the most part accept it as an established and valuable operation, without special discussion.

Löffler (General-Bericht, 1867, S. 288,) favors it in military cases, but condemns it in the intermediary period.

Stromeyer, Schwartz, McLeod and Demme all favor the operation in military surgery.

CONCLUSIONS.

The five shoulder resections in the Lake States were all successful. In other regions the operation is fully recognized as far safer than amputation at the same point. The foregoing table of the operation abroad give as follows:

Average mortality of resection of shoulder joint,	32 per cent.
“ “ amputation at “ “	39 “

Every motive, both of safety and of usefulness of the member requires resection to be preferred to amputation, whenever the conditions admit of the choice. Destruction of the head of the humerus and of considerable portions of the soft parts do not necessitate the loss of the limb. The decision rests mainly on the condition of the axillary nerves and vessels. Generally if, after an injury, there is a pulse at the wrist and some innervation in the hand, the resection is to be preferred.

In old irreducible dislocations with the head of the bone pressing on the axillary plexus, resection has been practiced, but in the present state of surgery a subcutaneous division of the ligaments to any extent necessary to allow of reduction, would usually be preferred.

The diseased conditions requiring the operation are for the most part so plain as to require no discussion.

The primary stage has the least mortality, the secondary the next, and the intermediary period is decidedly the worst, and should be avoided whenever it is possible.

The classified results foot up as follows:

Mortality of primary cases.....	30	per cent.
“ of intermediary cases.....	46	“
“ of interm. and second. cases comb..	37	“
“ of pure secondary cases.....	29	“
“ of pathological cases.....	19	“

RESECTION OF THE ELBOW JOINT.

Of this operation my Lake State tables furnish me only two cases, both of which were successful. Abroad the figures were as follows:

PRIMARY RESECTION OF THE ELBOW ABROAD.

AUTHORITIES.	CASES.	DIED.
Med. and Surg. Hist. War of Rebel'n, pt. II., vol. II., p. 845	318	68
Rept. Boston City Hosp., Dr. Cheever.....	2	2
Warren, Confed. Amer. Army.....	1	1
Esmarch, quoted in Gant's Surgery, p. 675.....	11	1
St. George's Hospital, London.....	1	1
Chisholm's Mil. Surg., Amer. Confed. Army.....	25	3
Arch. klin. Chir., Billroth's collection, Bd. X., S. 892.....	4	2
“ “ “ Bd. XIII., S. 576.....	1	0
Deutsch Zeit. Chir., German-French War, Bd. I., S. 187, und Bd. II., S. 105.....	12	3
Siege of Strassburg, 1870-71. Dr. Herrgolt.....	4	1
Totals.....	379	82

Mortality, 22 per cent.

INTERMEDIARY RESECTIONS OF THE ELBOW ABROAD.

AUTHORITIES.	CASES.	DIED.
Med. and Surg. Hist. War of Rebellion, pt. II., vol. II., p. 845	196	69

Mortality, 35 per cent.

INTERMEDIARY AND SECONDARY RESECTIONS OF THE ELBOW
ABROAD, COMBINED.

AUTHORITIES.	CASES.	DIED.
Med. and Surg. His. War of Rebellion, pt. II., vol. 11., p.845	250	74
Warren's Surgery, Amer. Confed. Army, p. 399	3	2
Esmarch, quoted in Gant's Surgery, p. 675	29	5
Prof. Billroth, Arch. klin. Chir., Bd. X., S. 892	3	2
Billroth's Briefe	1	1
Chisholm's Mil. Surg., Amer. Confed. Army	36	6
Deutsch Zeit. Chir., Bd. I., S. 187 and Bd. II., S. 105	64	16
Dr. Koch, Arch. klin. Chir. Bd. XIII., S. 575-6	4	1
Dr. Herrgolt, Seige of Strassburg, 1870-71	7	5
Total	397	112

Mortality, 28 per cent.

PURELY SECONDARY RESECTIONS OF THE ELBOW ABROAD, (LATER
THAN INTERMEDIARY.)

AUTHORITIES.	CASES.	DIED.
Medical and Surgical History of the War of the Rebellion, part II., vol. II., p. 845	54	5

Mortality, 9 per cent.

PATHOLOGICAL RESECTIONS OF THE ELBOW ABROAD.

AUTHORITIES.	CASES.	DIED.
Boston City Hosp. Rep. Dr. Cheever	3	0
Dr. R. Hodges	119	15
Rostock Hospt. Rept., 1868	1	0
British Army Med. Repts.	5	1
Gant's collection from British Hospitals	218	22
Heyfelder Lehrbuch der Resektionen, S. 246	188	23
Statist. des Hôp. de Paris	5	2
Archiv. klin. Chir. Bd. VIII. and X.	16	1
Totals	555	64

Mortality, 12 per cent.

RESECTIONS OF THE ELBOW, WITH CONDITIONS IMPER-
FECTLY STATED.

The following cases have been collected by various authors, whose sources of information are partly the same, so that a portion of the cases are duplicated, but as it is impossible to

get access to all the original documents quoted, the duplications cannot be eliminated. The totals, therefore, are too large, but as the duplications affect the cases and the deaths to the same extent, they do not materially vitiate the ratio of mortality:

AUTHORITIES.	CASES.	DIED.
Deutsch. Zeit. für Chir. Bd. II., III. and IV.	140	25
Archiv. klin. Chir. Bd. III., IV., VIII., IX., XIII., XV. and XIX.	428	56
Jahresbericht gesamt. Med. 1871, S. 403.	1217	223
Dr. Billroth, Archiv. klin. Chir., Bd. X.	30	4
Zurich Hosp., 1860-67.	25	3
Dutrellepont's table.	333	40
Heyfelder's Lehrbuch der Resectionen, S. 246-7.	286	32
Bericht k. k. allg. Krankenhaus Wien.	23	11
Stromeyer at battles of Langensalza and Kirchheingen.	25	4
Statist. des Hôp. de Paris.	2	1
Gant's collection from British Hosps., Surgery, p. 675.	19	1
London <i>Lancet</i> , 1862.	149	33
Circular No. 6, Surg. Gen. U. S. A.	286	16
U. S. Marine Hospit. Reports.	2	0
Trans. Ill. State Medical Society, 1863.	4	1
Totals.	2969	450

Mortality, 15 per cent.

GENERAL SUMMARY OF ELBOW JOINT RESECTIONS ABROAD.

Primary	22 per cent. mort.
Intermediary	35 " "
Intermediary and secondary combined.	28 " "
Pure secondary (later than intermediary).	9 " "
Pathological	12 " "
Unclassified	15 " "

OPINIONS OF AUTHORS.

As usual there has been some conflict among writers over this operation, but in the main they are pretty well agreed in its favor.

Circular No. 6, S. G. O., says that the mortality of it in the United States army was a little greater than that of amputation of the arm, but attributes it to the fact that many of the cases were partial resections which the author, Dr. Woodward,

considers more dangerous than complete ones in traumatic cases.

The Medical and Surgical History of the War of the Rebellion (prepared by Dr. Otis.) shows that in the American war the secondary cases were far safer than the primary, but recommends the primary because many cases not operated on are supposed to die before reaching the secondary stage.—Part II., Vol. II., p. 905. Yet on page 829 it gives the total mortality of non-operative cases at only ten per cent., which is less than half that of primary excision. As the non-operative cases are generally military, we cannot infer that operation is to be rejected in bad cases, yet the success of the non-operative treatment suggests a doubt whether many would die while waiting for the advantages of the secondary period. The writer of the work thinks that in our army the substitution of resection of the elbow for amputation above effected no saving of life.

The French armies, according to Chenu's statistics, had a fearful mortality in resections of the elbow, so that Prof. Sédillot declares it ought to be rejected from the service; but the German surgeons in the Schleswig-Holstein war had brilliant success with it.

Hugelshofer, *Deutsches Zeitschrift für Chirurgie*, Bd. III., S. 8, gives the same opinion, viz.: that partial resections are dangerous, and ought not to be performed. At page 6 of the same article he assumes it as certain that complete resection is safer than amputation above the elbow, and remarks, "be the functional results good or bad, as you will, the preservation of a certain number of human lives, which would have fallen a sacrifice to amputation of the arm, or to conservative treatment, must give the operation the first place in the treatment of wounds of the elbow joint."

Heyfelder, in his *Lehrbuch der Resectionen*, pp. 246-7, gives statistics showing that partial resections are rather more dangerous than complete ones. In an essay elsewhere published, he says the results are brilliant.

Stromeyer recommends it in gunshot wounds.

Demme and Saltzman give the mortality of conservative

treatment for gunshot wounds of the elbow as over sixty per cent., which is nearly three times the danger of resection for similar wounds.

Hanover (*Deutsches Zeit. Chir.*, Bd. III., S. 7,) opposes the operation bitterly, declaring that of sixteen army cases only one succeeded in getting ankylosis, and that when ankylosis was not obtained the limb was useless and burdensome, and the patient prone to desire it amputated.

On the other hand, Hugelshofer says that in most cases a sufficient stiffening of the false joint is obtained to give a useful limb.

Lücke, of Berne, admits that absolutely firm ankylosis is not usually obtained, but says that a loose arm is better than none.

Neudörfer gives the operation a high rank.

Billroth says that of sixteen movable joints in his observation, all were more or less useful.

Bickersteth, of Liverpool, says that of forty cases, thirty-eight survived, and all had very useful limbs,

Gant's *Surgery*, p. 650, recommends the operation.

Holmes' *System of Surgery* considers the operation probably more dangerous than amputation of the arm.

Erichsen favors it in proper cases.

Gross' *System of Surgery*, Vol. II., p. 1085, considers it an established operation.

Bryant, Hamilton and Ashurst all recommend the operation in proper cases.

CONCLUSIONS.

The opinion of several of the above authors that excision of the elbow is more dangerous than amputation of the arm, is wildly erroneous. The foregoing summaries show that the mortality of the excision varies between nine and thirty-five per cent., while that of amputation of the arm is from twenty to thirty-six per cent. It is evident, therefore, that the consideration of safety is decidedly on the side of excision, if the condition of adjacent parts admits of the choice. In regard to conservative, as compared with operative treatment, there

are no figures properly arranged for a decision because the non-operative cases are generally the mildest. The conservative figures are very contradictory. Demme and Saltzman put the conservative treatment in gunshot wounds at sixty per cent., while Billroth observed it in twenty-four cases to be eight per cent. The Medical and Surgical History of the War of the Rebellion, part II., Vol. II., p. 829, has by far the largest mass of conservative figures, viz.: Cases, 924; deaths, 96; mortality, 10 per cent. This seems at first glance a fine result, but when we consider that they were mostly slight wounds, we see that we have no true basis of comparison.

When the bones are pulverized by the passage of a bullet, it would be folly to talk of conservatism.

Slight compound fractures of the joint, and mild cases of caries do best without operation, under Lister's antiseptic injections and dressings, but bad comminution of the bone or extensive necrosis require excision. Amputation only comes in when the destruction of the circulation, or the presence of cancer, or other incurable conditions render the loss of the limb unavoidable.

(To be continued.)

Correspondence.

[We publish the following correspondence in addition to that upon the same subject in our issue of September, notwithstanding the great demands upon our space, at the request of Prof. Dunster, who asks it as a matter of justice to himself. We do not think our friends or the profession are by this correspondence any nearer an agreement as to the questions at issue, and we must decline to print anything further on the subject.—Eds.]

UNIVERSITY OF MICHIGAN, }
ANN ARBOR, Mich., July 22, 1876. }

Prof. Moses Gunn, M.D.

MY DEAR SIR: I have the honor to acknowledge the receipt

of your communication of the 20th inst. Again I beg leave to intimate that you have evaded my inquiry. I do not desire the opinion of Rush College as to whether we are educating and making homœopathic doctors. We feel quite competent to determine that question ourselves. But we cannot ascertain from the wording of the Rush Medical College resolution or from your letters what is meant by the term, "at that institution." Permit me to correct your assertion that homœopathy is taught by the old and still "regular" medical department of the University of Michigan. This is in no sense whatever true.

I am very respectfully and cheerfully yours.

E. S. DUNSTER, *Acting Dean.*

CHICAGO, July 25, 1876.

Prof. E. S. Dunster, M.D.

MY DEAR DOCTOR: You will, perhaps, permit others to entertain the opinion that, in effect, homœopathy is taught by your medical department, for without the co-effort of that department there would be no complete and efficient teaching of homœopathic students in the University of Michigan. You will also, perhaps, permit us to entertain the opinion that the irregular practice of the medical department in this respect, *makes it irregular.*

Now, my dear Doctor, notwithstanding your own "competence" and contempt of our opinion, let me *personally* express the hope that the Regents will use the whole of that appropriation, and more too, if necessary, in equipping a complete and independent department of Homœopathy, and thus relieve your department of the bad odor which attaches to it. I assisted in the organization of the Medical Department, and gave seventeen years hard and honest labor to it; in it I made whatever of reputation I have, and I love it, but only in its original purity. Therefore, notwithstanding your own "cheerfulness," I am, sorrowingly yours.

MOSES GUNN.

UNIVERSITY OF MICHIGAN,)
ANN ARBOR, Mich., July 28, 1876.)

Prof. Moses Gunn, M.D.

MY DEAR SIR: Of course you are entitled to entertain such opinions as you may choose. But let me remind you that opinions do not alter facts. Now the fact is that we are not teaching homœopathy in the old department of Medicine and Surgery any more than you are teaching it in Rush College. Our teaching, like yours, is flatly and diametrically opposed to homœopathy and all one-sided and untrue systems of medicine, and no one probably knows this better than yourself, who has such an intimate acquaintance with the organization and *personnel* of this school. The slip in your logic is that you have made the teaching of homœopathic students identical with the teaching of homœopathy; whereas there is neither identity, similarity nor analogy even between the two. Now, believing as I do religiously, that the best and speediest way of overcoming error is through the teaching of truth, I am still cheerful under the situation. My only sorrow is that so many who claim to be our friends, and to love the institution, will so persistently misrepresent our case. It is much easier, my dear Doctor, to reform a sinner, (and I know that very many in the profession look upon us here as about the vilest of that class,) by convincing him of the error of his way, rather than by charging him with offenses which he has never committed.

I should be most happy to enter into a consideration of the merits of this question—to which you show a tendency in your last note—but time does not permit. Hoping that I may some day have an opportunity of doing so in person,

I am very respectfully, but still cheerfully yours.

E. S. DUNSTER.

[To this note I have received no reply.]

E. S. D.]

SAN FRANCISCO, CAL., Sept. 6, 1876.

EDITOR CHICAGO MEDICAL JOURNAL AND EXAMINER—*Dear Sir:* Thanks to our salubrious climate, our bracing and in-

vigorating sea winds, with a temperature rarely above 70° during the summer months, bowel affections of young children and like diseases do not play as conspicuous parts in our mortality, as they do in your city. Notwithstanding, however, the absence of this class of diseases, the profession have had no reason to complain this year of little to do, as small-pox has existed in an epidemic form in this city since last May. As a matter of course, the Chinese population are accused of having introduced the disease, for it is customary here to charge them as the immediate cause of every occurrence of an unpleasant character, be it an epidemic, an earthquake, or the usual "hard times." Whether this be deserved or undeserved the writer will not undertake to decide. * * *

The total number of cases of small-pox reported to the Health office since the outbreak of the epidemic to date is 700; the deaths amount to 180 in all, or over twenty-five per cent. On an average about seventy-five new cases are still reported during each week. To illustrate the criminal intent of very many people to hide from the proper authorities the existence of small-pox in their families, to which in a great measure the continuance of the epidemic is due, we add the following case, which occurred last week: The death of a child in the family of a tailor having been reported to the health officer, this gentleman paid the house a visit. He found the tailor at work in a front room, while in a rear apartment, separated from the workshop by a thin wooden partition, were six children afflicted with small-pox, the seventh having died of the disease. These children had been sick six weeks, and during this time the tailor attended to his business, serving his customers in this atmosphere of infection. Adjoining the shop are, on one side a restaurant, on the other a bakery. That the epidemic has not made frightful ravages under such conditions is solely due to the vigilance of the Board of Health, which latter enjoys in this city (as an exception) unlimited authority in all sanitary matters. The Board is composed of the Mayor and four physicians, selected by reason of their eminence in the profession, and is entirely removed from political influence. It will no doubt interest

the many friends of Dr. Cornelius Herz, late Sanitary Inspector in Chicago, to learn that Dr. H. is one of the members of the Board of Health. Shortly after the outbreak of the epidemic a system of "wholesale" vaccination was introduced at the suggestion of Dr. Herz. Physicians were appointed in all sections of the city, whose duty consisted in vaccinating those who applied, free of charge. To remove any possible objection to vaccination, only fresh bovine vaccine virus was used in the majority of cases. Other precautions which were adopted to prevent the spread of the epidemic consisted in the compulsory re-vaccination of all pupils attending the public schools; the vaccination of the crews of every outgoing and incoming vessel; strict enforcement of the quarantine laws; the appointment of additional sanitary inspectors, etc. Owing to these means, the epidemic has been confined to very narrow limits, the number of deaths not averaging over fifteen a week. It must also be remembered that in this densely settled city, with a population of 300,000, there are over 20,000 Chinese, who persist in living in open defiance of any and every sanitary law, all endeavors to the contrary notwithstanding.

Our State Boards of Medical Examiners are at work examining diplomas and issuing licenses to those who have none, but can pass the required examination, in accordance with an act passed by the last Legislature. As this act was so modified as to allow every State Medical Society to appoint a State Board of Examiners, no matter to what system of quackery it might belong to; and as already four such Boards are in existence, it does not require a profound philosophical turn of mind to perceive that a quack need not experience great difficulty in passing the examination required by a State Board of Quacks. If no such law had been passed, the condition of things would have been an improvement on the present system, which to our way of thinking will not accomplish much more than to legalize quackery. The plan adopted by the Medico-Historical Society of Chicago, in publishing an annual Medical Register, is the best way of protecting regular physicians until our legislatures shall be endowed with sufficient common

sense to appoint State Boards of Medical Examiners, not composed of charlatans and quacks, but of regular physicians, as is the custom in civilized nations; the United States, however, being an exception.

Yours very truly, EDMUND J. DOERING, M.D.

TO THE EDITOR OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER—*Dear Sir:* I wish to call the attention of the profession to the use of Iodine in combination with the Basilicon Ointment for external applications to any part where the use of Iodine would be indicated.

I sought a vehicle which would hold the Iodine when applied, and that would neither irritate or vesicate until it was absorbed. I had used the resin cerate upon pledgets of cotton as a dressing applied to the cervix uteri after the use of the nitrate of silver, when it occurred to me that that was the article for the Iodine.

I asked Mr. Walter Clarke, at 336 West Madison Street, to prepare it. I mix

R	Iodin. (Crys).....	grs. x.
	Potass. Iodid.....	q. s.
	Cerat. Resin.....	℥j.

M. and use as directed.

I have used it in various ways; the most successful of which is as an application to the cervix uteri when hypertrophied and congested; it is also useful in endocervicitis, or endometritis—in pelvic cellulitis and chronic pneumonia or bronchitis.

For endocervicitis I use the cotton upon the applicator bathed well with the cerate and leave it in the cavity by showing it off the applicator, a long twist of cotton having been wound about the handle of the applicator and being left in the vagina. A pledget of cotton well covered with the cerate and having a string attached, is next placed against the uterus and the whole is left for from three to twelve hours. When the vaginal cotton is removed, the cervical is also. I consider it a far better application than the pinus canadensis.

In cases of severe endometritis and induration I have used this as the only medication, after a few applications of the nitrate of silver, or the acids, and effected a cure sooner than with any other article.

With this strength I have known it to vesicate but once, and that was after vesication had been induced in the same locality by a severe topical medication, and the ointment had been applied afterward before the parts had healed.

If others think well enough of it to try its use, and report, we would feel greatly obliged.

Most respectfully,

MARY HARRIS THOMPSON, M.D.

PILES—CARBOLIC ACID TREATMENT.

In calling the attention of the profession to this treatment of hæmorrhoids, it is done feeling that while some of us have known of its virtues for several years, there are many who have not, and whose minds should be attracted to its importance. It is probably safe to say that one in twenty adults have been afflicted with piles. Nor is this to be wondered at when we call to mind the arrangement of the intricate plexus of veins in the submucous tissue which are affected—instead of the hæmorrhoidal veins proper. Were it not for the partial relief by the middle hæmorrhoidal emptying into the internal iliac, when stasis is produced through the superior by portal engorgement, piles would be more frequent.

The cure is effected by causing partial or complete obliteration of the submucous vessels injected, and giving greater firmness to the tissues. The treatment is very satisfactory, producing little pain and rarely any subsequent inflammation. The good effects are permanent, and generally in two or three sittings, two to four days intervening between each visit.

If the patient has not been obliged to stop business before application, it is not necessary during treatment. It is preferable to employ it after the bowels have moved in the morning. If the bowels are in a soluble condition no laxative is needed. The acid used is dissolved in from one to four parts of glycerine, and a portion of morphia or belladonna added, suitable to

the age and susceptibility of the patient. From one drop to a drachm of the mixture may be used at one sitting, and repeated every three to six days.

To apply it to longitudinal or internal piles it is necessary for the patient to bend over a chair or bed, or kneel with face to the floor and strain, while an assistant with thumbs and fingers turns out the gut. The tumid veins are made prominent and the medicine injected hypodermically, using a few drops to each vein or pouch. If the veins are very large two or three only should be injected at one sitting. The external tumors are treated by simply injecting a few drops into each. The ulcers are treated by application with camel's hair brush, or simply injecting into the adjacent areolar tissue. If the brush is used a little care must be used not to load the brush and permit the acid to run down the scrotum or thighs.

It is scarcely necessary to say that the treatment is intended for simple cases. If fistula, syphilis, or fissure exist, they need appropriate treatment, and the hæmorrhoidal tumor covering the lower part of the crack in fissure, will always be recognized by the experienced eye from its little cherry-like appearance. If there should be any subsequent inflammation a flax or bran poultice with hops will give relief.

The above treatment is as good as, if not identical with that of Dr. C. H. David and a few others who are selling the right to treat cases, and making the business a specialty.

Very cordially yours, JNO. J. TAYLOR.

Streator, La Salle Co., Ill., July 15, 1876.

Book Reviews.

[NOTE.—All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose Catalogue of Medical Books will be sent to any address upon request.]

THE MEDICAL JURISPRUDENCE OF INSANITY, by *J. H. Balfour Browne, Esq., etc.* Second edition, with references to the Scotch and American decisions. 8vo., pp. 713. Philadelphia: Lindsay & Blakiston. 1876.

The first edition of this very valuable contribution to the literature of medical jurisprudence met with favorable consideration from its many critics. The present volume claims very justly for itself additional appreciation, not entirely based on previous merit, but because it has been in great part rewritten and re-arranged, and, in some instances, its propositions have been reconsidered and recast; and, moreover, the new and important cases that have been decided, and the several works on law and insanity that have been issued since the previous publication, have been carefully considered, and so far as deemed desirable have been embodied in this edition. In addition to this its usefulness as a book of reference has been very much enhanced by the subdivision of the chapters into sections, to which the index and table of contents refer.

Without entering into a detailed description of the work, we earnestly commend it to the profession as one of the most desirable in the specialty, not only on account of the exhaustive and scientific character of his descriptions, but because of the striking originality displayed on almost every page. We endorse the book generally, but take exception to certain of its propositions, especially to the tests of responsibility. These tests are those agreed upon by the English judges after the celebrated trial of McNaughton, in 1843, in reply to questions propounded by the House of Lords. We object emphatically to the answers to the third and fourth questions. These are, *First*, "That to establish a defense on the ground of insanity,

it must be clearly proved that at the time of committing the act the accused was laboring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing, or if he did know it, that he did not know he was doing wrong." *Second*, "That if the delusion under which the person labored was only partial, the party accused was equally liable with a person of sane mind. If the accused killed another in self-defense he would be entitled to an acquittal; but if the crime was committed for any supposed injury, he would then be liable to punishment."

The learned barrister (our author) would here come, doubtless, to a very different conclusion with reference to these tests of responsibility had he received his impressions of the motives and impulses, tastes and sentiments, intellection and perception of the insane from personal association with them, and the pertinacity he now displays in defending them would have been employed in proclaiming their unreliability. This association would have taught him that insane people in hospital do acts, that are unquestionably the offspring of disease, with deliberation, without the compulsion of irresistible impulse, which they know and admit to be wrong, and for which they would tell him that they deserve punishment. He would moreover have ascertained that there is no such thing as partial delusion, and that the fact of the existence of a delusion unquestionably implies such a serious error in intellection as would prevent a man reasoning with the same correctness of judgment as sane men do, and that it is therefore wrong to bind him down to the same tests.

The whole difficulty, in our opinion, arises from the failure of our author and the judges to consider mind as a totality. It has been aptly compared to a delicate machine, every part of which is essential to perfect work, and in which the slightest derangement of any part produces disorder and confusion.

In our opinion there are but two questions to be given to the jury in cases involving responsibility: *First*, Is the prisoner insane; and, *Second*, Is the alleged criminal act the offspring of disease. These being determined in the affirmative, the prisoner should be relieved of all responsibility.

Our author, like the legal fraternity generally, has not a very high appreciation of medical expert testimony. We are disposed to find fault with him for this, but nevertheless think his criticism is in part deserved. The medical profession at large has paid but very little attention to the study of insanity, and in addition, labor under the disadvantage of being summoned as experts by one side or the other in the suit, and frequently find themselves almost irresistibly, it may be, in the position of partisans. This last difficulty might be obviated by making the expert an officer of the court, summoned by the court, and under no obligation to either plaintiff or defendant.

We do, in conclusion, commend the book to all members of the medical and legal professions who are interested in this branch of medical jurisprudence.

D. R. B.

A PRACTICAL TREATISE OF DISEASES OF THE EYE, by *Robert Brudenell Carter, F.R.C.S.*, Ophthalmic Surgeon to St. George's Hospital, to the Royal South London Ophthalmic Hospital, etc. Edited, with additions and test-types, by Dr. John Green.

A notice of the English edition of Mr. Carter's work has already been placed before the readers of this journal.

We now welcome the American reprint, prepared by Dr. Green, of St. Louis, with his valuable annotations and additions.

An author who has enjoyed an extended and abundant experience, both in private and hospital practice, and who is a thorough master of the theory and practice of his specialty, can scarcely fail to produce a valuable work; as such we consider this volume.

We cannot but regret, however, that the author did not make so good a work, in some respects better than it is, and that the editor, so eminently qualified, did not increase the number and extent of his remarks and criticisms.

Such a treatise as this is intended principally for the use of beginners and for general practitioners.

Although the latter class, in country practice, can scarcely

hope to become "ophthalmologists," they should qualify themselves for the skillful treatment of the various forms of external inflammation and iritis, and should be able to diagnose with the ophthalmoscope incipient cataract, intra-ocular tumors, adhesions of the iris and lens.

The faithful study of Mr. Carter's work will enable any careful practitioner, who has attended an eye clinic during his college course, to accomplish this. The various subjects are usually discussed in clear language, which cannot fail to be understood.

Technical terms are almost invariably explained in the text, and yet we believe a glossary of words, frequently found in ophthalmic literature, would be a great convenience to the young student, if not to the old.

For instance, we think it would greatly puzzle a student reading page 207 of Well's text book, to discover the true meaning of "*Cataracta accreta*." To what book could he turn for a solution of the mystery.

The index is somewhat imperfect. The index of any work worth reading can scarcely be overcrowded with minutiae. A glance down the columns of an index is a review of the whole work; it reminds the student of those subjects of which he is still ignorant, and which he needs to reconsider.

We can commend the manner in which drawings of instruments are made, and in which are given their names based on their use, or the names of their inventors. The terms applied to operations and formulæ of remedies, based on the names of their originators, are also generally well explained.

The subject of the conjunctivitis of new born children is dismissed with a notice too brief. While we entirely agree, with the author, in regard to the treatment in almost all cases, by means of mild astringents, frequently applied, we do not believe those cases, not altogether exceptional, in which, early in the disease, there is great swelling of the conjunctiva and lids, and great secretion of pus, can be safely entrusted to the care of ordinary nurses and parents. In such cases our experience places us among those who trust to quite strong solutions of arg. nit applied evenly but not too freely over as

much of the conjunctiva as possible. This cannot be properly done by a nurse inexperienced in everting swollen lids.

It is not especially rare that a mother brings to the surgeon her babe, and with it a little crystalline lens carefully folded in a paper. We doubt whether, in such a case, Mr. Carter, with all his skill and gentleness, could be sure he could separate the lids of the other eye without danger of seeming to observing friends to "squeeze" out the lens.

The few paragraphs devoted to this subject, read before a jury trying a physician for malpractice, would not be to the advantage of the defendant, however innocent he might be of mismanaging the case.

The physiology of the superior and inferior recti and of the oblique muscles, should, we think, have been concisely explained, for nearly all our standard works on anatomy and physiology are singularly at fault on this subject.

We are glad to observe an allusion to the fact, mentioned in scarcely a work in English, that calomel should not be dusted into the eye when iodide of potash is taken internally, on account of producing irritation or even cauterization of the conjunctiva.

It is worthy of notice that the author frequently gives ample credit to American specialists.

We repeat that, except for a few faults, which we consider, however, as quite grave, we highly commend this work, and believe its clear description of disease, and its lucid explanation of the methods of diagnosis and treatment will soon render a new edition necessary.

E. L. H.

DE LA VALEUR DE L'HYSTÉROTOMIE DANS LE TRAITEMENT DES TUMEURS DE L'UTÉRUS. PRÉSENTÉE AU CONCOURS POUR L'AGRÉGATION (SECTION DE CHIRURGIE ET D'ACCOUCHEMENTS) ET SOUTENUE À LA FACULTÉ DE MÉDECINE DE PARIS PAR LE *Dr. Samuel Pozzi*, Ancien aide d'anatomie à la Faculté, Lauréat des Hôpitaux (prix des internes, médaille d'or,) Membre de la Société d'Anthropologie, etc. Paris, 1875.

In the year 1873 there appeared a remarkable little book, a translation of the title of which is, "*Hysterotomy for the*

ablation (partial or total) of the Uterus by Gastrotomy. A study of those tumors which may necessitate that operation." by G. Pean and L. Urdy. It was published in Paris. The object of it was to advocate gastrotomy as one of the justifiable measures in the treatment of fibrous tumors of the uterus under circumstances where no other remedy seemed available. The work made a profound impression on the profession of the whole civilized world, and was a necessary predecessor to the thesis of Dr. Pozzi.

In the work of MM. Pean and Urdy, M. Pean informs the profession that he had performed the operation nine times and met with success in seven of his cases; at the wonderful rate of seventy-eight per cent. of cures. Dr. Pozzi, in his thesis, gives first the history of the operation, from which we learn that all the first operations were begun and many of them finished under the impression that the operator had to deal with an ovarian instead of a uterine tumor. The first of these mistakes occurred in the hands of Dr. Charles Clay, of Manchester, England, which was soon repeated by Mr. Heath of the same place.

Dr. Burnham, of Massachusetts, seems to have been the first to meet with success. His operation was performed in June, 1853, and published in *Nelson's American Lancet*. After this Peaslee, Kimball and Boyd, of this country had successful blunders of the same kind. Then came Spencer, Wells and Kœberle. The first person to advocate and perform gastrotomy for fibrous tumors of the uterus was Kœberle, of Strassburg, 19th of December, 1863. He was closely followed by Dr. Horatio Storer and several European authors. The French Academy of Medicine, and the large body of the profession at that time declared against the operation. We think now, however, that there is a strong disposition on the part of the ovariologists, if not of other surgeons, to place this operation on the list of legitimate and justifiable measures in certain desperate cases. Dr. Pozzi says the operation (gastrotomy) should be reserved for such cases of fibrous tumors or fibrocystic tumors of the uterus of rapid, galloping

growth, as are accompanied by grave symptoms which threaten the life of the patient.

The fatality of the operation was very great at first when it was merely stumbled upon, and performed hap-hazard; but it would seem from the success of M. Pean that when deliberately entered into, and skillfully executed, the dangers from the operation is not greater than in ovariectomy. Dr. Pozzi publishes a table in which he has collected 119 cases, including the accidental as well as the deliberate operations, and the mortality amounts to about 67 per centum.

Every one knows how to estimate the results of a new operation, performed by all sorts of surgeons, under the adverse circumstances of being unprepared for it, the operator not suspecting the nature of the tumor, and entirely inexperienced in the method of removing it, and the care of the patient afterwards. The only wonder is that the mortality was not greater. It would seem that we really have no other series of cases than those presented by M. Pean upon which to base an impartial judgment.

The cases of M. Pean, as given in this thesis of Dr. Pozzi, in 1875, present to us a remarkable amount of success for any capital operation. In twenty-four cases there were eighteen recoveries and six deaths. Seventy-five per cent. of his cases were therefore successful. This would be a good showing for ovariectomy.

In addition to the subject of abdominal hysterectomy, Dr. Pozzi investigates in a thorough manner the removal of polypi by dilatation of the cervix uteri, enucleation, intra-uterine hysterectomy, retro-uterine hysterectomy, and amputation of the inverted uterus containing fibrous growths. His researches are extensive and very interesting to the gynecological reader especially. It would hardly be profitable to follow him through all these various divisions of his thesis in a journal like ours. In fact the object had in view in this notice of the work under consideration was to present to our readers an idea of the rapid advancement toward perfection of the momentous operation of abdominal hysterectomy.

In perusing the rapid sketch we have here given of the

present status of abdominal hysterotomy, the senior reader will hardly fail to see a close parallel between its present condition and ovariectomy twenty-five years ago. In speaking of the first cases as blunders, mistakes, etc., we do not wish to be understood as treating irreverently the great men who happened into them. It will be remembered that our means of diagnosis of abdominal tumors—not yet perfect—are now so much in advance of what they were at the time these mistakes were made that we cannot wonder at them. Our astonishment will be very much modified, also, from the consideration that among the men thus failing in their diagnosis were Spencer Wells, Atlee, Kimball, Kœberle, and others.

With the means now at hand for distinguishing between these morbid growths, such mistakes, if they occur at all, will be very few indeed. Hence we may assume that in future a more deliberate and judicious experience will very soon enable us to arrive at just results.

A MANUAL OF DISEASES OF THE EYE, by *C. Macnamara*, Surgeon to Westminster Hospital. Third edition. Lindsay & Blakiston, Philadelphia. 1876.

A careful perusal of this work convinces us that it is an excellent manual of eye diseases. The author presents in a small volume, and in a clear and well arranged manner, a pretty complete account of modern ophthalmology.

The work is divided into sixteen chapters. The first and second treat of the anatomy, accommodation and refraction of the eye; chapters three, four, five and six treat of the diseases of the orbit, lids, lachrymal passages and sclerotic; the seventh, eighth, ninth and tenth are on the diseases of the conjunctiva, cornea, iris and choroid; chapters eleven, twelve and thirteen treat of the diseases of the retina and optic nerve, vitreous and lens; chapter fourteen of affections of the muscles; chapter fifteen of the disorders of refraction and accommodation; chapter sixteen is a brief notice of congenital malformations and diseases of the eye. While the author as a rule coincides with the most generally accepted views on eye diseases, and gives to each disease about the amount of space its

importance demands, we think he varies from this in some instances.

In the third chapter, regarding the treatment of scirrhus of the orbit, he says: "I am opposed to surgical interference; the use of the knife I believe accelerates its progress, and the chances are infinitely small of our being able to eradicate the cancer." We agree with him that the chances are small, but even an infinitely small chance is better than none at all. He refers to a case reported by Mr. Lawson, which, after a thorough removal of the growth, progressed favorably, and eleven months afterwards presented no signs of the return of the disease, and says: "Cases of this kind seem hopeful, nevertheless they do not deter me from pressing my opinion as to the advisability of non-interference with the knife in scirrhus of the orbit." Of two evils we prefer the least, and must dissent from this view.

Diseases of the lids, lachrymal passages and sclerotic are treated of in a concise and practical manner. The various inflammations of the conjunctiva are considered under the following heads: hyperemia, muco-purulent, purulent, diphtheritic, granular and pustular conjunctivitis. Infantile and gonorrhoeal conjunctivitis are included (and we think properly) under the general head of purulent conjunctivitis.

In a note on page 159 the author says: "It seems to me hardly wise to retain the word ophthalmia to designate diseases of the conjunctiva. We employ the terms iritis and choroiditis and so on to signify inflammation of the iris and choroid; why not, therefore, conjunctivitis in analogous diseases of the conjunctiva." We echo the question, "Why not?" This term seems to us to be the simplest and most scientific, and it is certainly desirable to have uniformity in the nomenclature of eye diseases. Iritis is described under three heads: plastic, serous and parenchymatous. With regard to the use of mercury in the treatment of iritis, Mr. M. says: "As a general rule it may be affirmed that mercury is rarely to be employed in iritis, unless in cases arising from syphilis; in other instances of iritis this drug is seldom required." With this view we heartily concur.

Glaucoma, which is considered in the chapter on the diseases of the choroid, is not given the space its importance demands, as it is dismissed with seven or eight pages. With regard to the treatment of glaucoma, the author says: "There can be no doubt whatever that iridectomy, if practiced sufficiently early, will cure the disease" — "the operation consists in the successful removal of a section of the iris, together with its ciliary attachments."

Mr. M. makes an uncalled-for digression in chapter eleven, where he describes as hyperamia of the retina what is properly described by other authors as serous retinitis. Glioma is dismissed with less than three pages. The author must have a view of his own about the malignancy of morbid growths. Disregarding the clinical facts of secondary tumors in the liver and other organs observed in numberless cases of glioma, he surprises the reader with the strange statement: "These tumors are of a slow growth, and it is doubtful if they are malignant."

The author's long residence in India has afforded him valuable experience upon the influence of climate, race, malarial poison, etc., in the production and treatment of some eye diseases.

The volume is supplied with marginal notes on its contents, which will greatly facilitate reference; but it is questionable whether they are profitable to the student. The text is fairly illustrated with cuts and diagrams. There are also a number of chromo-lithographic plates, which are far from being creditable. Most of the figures are copies from other works, but are miserable representations of what they are intended to illustrate. Notwithstanding these minor defects, the work is one that we can heartily commend to the student and general practitioner, and as worthy of a place in the library of the specialist.

W. T. M.

LECTURES ON ORTHOPEDIC SURGERY AND DISEASES OF THE JOINTS. *By Lewis A. Sayre, M.D.* Published by Appleton & Co. New York, 1876.

The preface states that these extemporaneous lectures are

printed without change, exactly as taken down by a stenographer attending for the purpose.

This can hardly be true in the strict sense, as the first lecture would occupy only fifteen minutes, and the second one only nine minutes in delivery, and there are no clinical cases introduced in either whose examination could account for the remaining part of two ordinary lecture hours. We must suppose that the statement of the preface is an inadvertancy, and that the author, like other sensible men, revised and rearranged the first notes so as to present the subject matter in proper book form.

The first lecture is devoted to a historical and general discussion. The second refers very briefly to the definitions and etiology of deformities. The third lecture takes up the topic of *Phimosis* as the cause of infantile paralysis, and gives some remarkable cases of cure by circumcision. This is perhaps one of the most singular and valuable discoveries in modern minor surgery, if further experience shall fully confirm it. The notice of it in these lectures is, however, very brief, and the reader will need to complete his study of the topic by the the help of medical journals and society transactions of the last three years.

Lectures four, five and six discuss very briefly some of the practical measures applicable to deformities in general, such as tenotomy, electricity, mechanical appliances, gymnastics, etc.

The next five lectures are devoted to the important subject of Talipes. They are copiously illustrated, and while there can be no claim to completeness in a discussion of talipes, occupying only ninety pages, yet there is so much that is practically useful condensed into them that they are worthy of high commendation.

Lecture twelve treats of corns, bunions, bow-legs, knock-knee, etc. Lectures thirteen to twenty-four give us the author's views on diseases of the locomotor joints, commencing with the ankle. For extension on inflamed ankles Sayre still uses his somewhat cumbersome and expensive ankle-extensor.

It appears to us that the neat and simple leather apparatus commonly used in Chicago, which is moulded on a plaster

cast of the foot, and acts by pressing the foot down and the leg up, on the principle of two hollow cones apex to apex, is much preferable.

Sayre introduces here a very ingenious method of making extension on inflamed tarsal joints. This consists in placing five "Indian puzzles" on the toes, and by means of them suspending the foot to a cross-bar.

The knee joint is next taken up, and the pathology of its diseases briefly stated. On page 202 is depicted a method of making extension in bed on a knee which is both inflamed and bent, so that extension cannot be made in the straight position. It consists in an ordinary stretch on the leg by adhesive straps, weight and pulley, to which is added a simple band under the calf of the leg, pulling obliquely upward and toward the foot, so as to hold the knee bent at any desired angle. Sayre seems unacquainted with the simple and efficient apparatus used by Chicago surgeons for knees which are bent and at the same time inflamed, and which allows the patient to go about on crutches; for he says the "extension must be made while the patient is in bed until the limb is brought nearly to a straight position before the instrument (his straight extender) is applied." His ingenious and compact extender is then described, and it is certainly worthy of high praise in cases where the limb is straight. In our opinion, however, the extension apparatus of the late Prof. Sherman, of this city, is equally efficient, and has the merit of being capable of being put on and taken off with much less trouble. Sherman's instrument also rarely causes the swelling of the knee, which Sayre says is produced by the constriction of his apparatus if the knee-bandage is omitted. Yet we think Chicago surgeons are very negligent, in the fact that they do not more generally apply the knee-bandage in cases of instrumental extension, and they would do well to give heed to the author's precepts on that point. His words are, "compression is an essential element in the management, and must never be neglected."

After the diseases of the knee, the lectures proceed with *Morbus coxarius* and spinal diseases, but the limits of this notice do not permit of a full abstract of them. As a whole

they are interesting, and contain many practically useful precepts, though, being only clinical lectures, they are necessarily somewhat desultory and incomplete, and make no pretense of being a systematic treatise.

E. A.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Volume Fifth. Edited by *James Tyson, M.D.*

This most valuable volume of a most industrious society contains the material contributed during the whole of 1874 and the first part of 1875. The volume reflects great credit upon the Pathological Society, and especially upon the editor. The book is made up almost wholly of descriptions of pathological specimens. The list of them is as follows: Thirteen of the osseous system; thirty-four of the digestive apparatus, including ten of the liver and its appendages; twenty-five of the vascular system; thirteen of the respiratory system; twenty-four of the genito-urinary apparatus; eight of the nervous system; five of the organs of special sense; five of diseases of the ductless glands; twelve tumors not otherwise classified, beside a half dozen or more of miscellaneous specimens.

Twenty-two specimens were referred to a committee on morbid growths, whose reports upon the cases are published. The work is embellished with sixteen wood-cuts and is supplied with a very full index. The histories of specimens are brief, concise and evidently accurate, and are only accompanied by a sufficient report of the remarks made in the Society at the time of presentation to make the whole account pleasantly readable and thoroughly understandable. In the space at our command it is impossible to give anything like a complete idea of the contents of the volume; it would require many pages to do this. But we heartily say it is one of the most interesting and valuable records of pathological history — the history of pathology — it has been our fortune to examine. Such records of medicine, becoming in the years a great wealth to the profession, cannot be too highly commended nor too warmly encouraged. We are only pained that some cities we could mention, west of Philadelphia, and nearly as large, have so far shown no promise of similar efforts.

MEDICAL DIAGNOSIS WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. A guide to the knowledge and discrimination of Diseases. By *J. M. Da Costa, M.D.*, etc. Fourth edition, revised. Philadelphia, J. B. Lippincott & Co. 1876. pp. 835.

We always, since the appearance of the first edition of this book, have regarded the work of Da Costa as one of the most valuable of American contributions to the study of human disease. We have had in this belief, we are sure, the almost unanimous agreement of those of the profession who have been familiar with our author's work. The book has been during the last dozen years really and safely "a guide to the knowledge and discrimination of diseases" to many of us groping and often puzzled practitioners.

The American profession know very well the use to which Prof. Da Costa has put his time and opportunities during these years, and do not need to be told that, in the numerous additions and changes incorporated in this revised edition, the work has been made still more worthy of their confidence. The changes and additions show themselves most in the parts devoted to nervous diseases and fever, two classes of affections which have of late engaged so much study and attention among our best students. We do not believe the whole is yet known about these disorders, and have a strong suspicion that not a little will have to be unlearned in the future, but Da C. has endeavored to give us safe rules for practical guidance, and we have no doubt he has succeeded as far as is in this day possible.

We have not space to note the particular changes which this edition shows from the former; they are both numerous and valuable. All books have faults; this one has, but it has many virtues, and is altogether the most trustworthy and valuable on the subject of which it treats of any the American student can get hold of. It ought to form a part of the library, of many more physicians than it has heretofore.

TRANSACTIONS OF THE TWENTY-FIFTH ANNIVERSARY MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY, held in the City of Jacksonville, May 18, 19 and 20, 1875; 8vo., pp. 288. Chicago: Fergus Printing Company, 1875.

The first article, of general interest, is a report on scarlatina, by Dr. J. P. Walker, presenting a new remedy and prophylactic, viz.: iodide of potassium. He claims to have treated two hundred and fifty cases of varying degrees of severity, without a fatal result where the method was properly carried out. He insists on free greasings from the first, and with the drug named, gives scilla and veratrum viride. We hope a more extended experience will confirm the satisfactory results he has obtained.

The second is a report on the anatomy of serous membranes by Dr. Lester Curtis, and is an entertaining effort to explain the cause of the adhesions that follow the inflammation, particularly of the pleura and peritoneum.

There is a report on the treatment of whooping cough, by Dr. J. O. Hamilton, supplemented by a report on the same subject, by Dr. Chas. W. Earle. These reports give the experience of the authors in the use of quinine in this disease, and fully confirm the observation made and reported a few years ago by Dr. B. F. Dawson, of New York City. The case reported by Dr. Earle is novel, inasmuch as the quinine was locally applied with the atomizer. A limited experience we have had with this remedy has been as satisfactory as that detailed in these reports.

The paper on transfusion of blood, by Prof. J. W. Freer, is an able account of the history and method of using this recently revived therapeutic agency. He expresses his preference for the indirect method, and describes a very simple apparatus for the purpose. Speaking of transfusion in chronic cases he says: "In this manner, for the time being, the means are furnished for a more or less successful warfare against disease and natural waste; but if the digestive organs do not, in the meantime, profit by this respite, and regain their normal power and activity, the tissues and organs must soon again be on short rations, while the patient naturally sinks to

the old standard." Speaking of it in danger from acute hæmorrhage, he says: "So certain is trasfusion of normal blood to resuscitate and restore to life, that we feel warranted in asserting, emphatically, that the practitioner in charge is under the most sacred obligations to perform this operation of transfusion." An account is given of experiments by himself that seem to show that blood retains its nutritive and vivifying properties, for some time after being drawn, for the living tissues. In one case the blood was not transfused until seventy-two hours after it was drawn, and the operation was successful.

The next in order is a report on practical medicine, by Dr. E. P. Cook, and a contribution to the same, by Dr. R. C. Hamill. The first is entitled to consideration especially because it recommends a return to the old treatment of blood letting in pneumonia and pleurisy; the second is important because it presents to us a combination of remedies that, in the doctor's hands, has been very successful in the treatment of sub-acute and chronic rheumatism and in tonsillitis. This combination consists of equal parts of tinctura phytolacæ and tinctura guaiaci. The author also recommends these remedies in certain forms of dysmenorrhæa, in migraine and the latter remedy in scarlatina and diphtheria. We doubt very much whether these remedies will be attended by any such good results in the hands of the profession at large, for we are of the opinion that no little of the success is due to the personal magnetism and will power of the doctor himself.

The report on gynecological instruments, by Dr. T. D. Fitch, shows that the inventive genius of the State has been very active. Three new speculums, a new vaginal retractor, a new tenaculum, a new uterine sound and uterimeter and a new pessary have been recently added to the uterine armamentarium.

The report on obsetrics, by Dr. J. B. Rood, deals especially in post-partum hæmorrhage and enumerates, as valuable agents for its relief, injections of perchloride of iron, injections of hot water, and the electro-magnetic current. An account is also given of three cases of arm presentation, in which he successfully practiced cephalic version.

The report on small pox, by Dr. E. W. Gray, is a very able resume of the etiology, pathology and prophylaxis of this loathsome disease. The fact is developed that there is wide spread neglect, throughout the State, of vaccination, and, as a remedy, our author very wisely demands legislative interference in the shape of compulsory vaccination for the protection of the people. He sagely remarks: "that every life lost by this disease is needlessly sacrificed, and that a matter of such gravity should not be left subject to individual caprice and folly." We trust his efforts may be successful.

In conclusion, we wish to express the great pleasure we have derived from our perusal of the Transactions, and congratulate the Secretary and society generally on the many excellencies of the volume.

D. R. B.

CHIRURGIE ANTISEPTIQUE, PRINCIPES, MODES D'APPLICATIONS ET RESULTAT DU PANSEMENT DE LISTER. Par Le *Dr. Just. Lucas-Championnière*. Paris, Baillière et Fils. 1876.

Since the readers of this journal are (or at least ought to be) well acquainted with the so-called antiseptic treatment and with Lister's essays on this subject, the review of the book before us can be very brief. It is a French reiteration of Lister's doctrines. The writer explains and ably argues the germ theory on which the antiseptic treatment is based, he minutely describes all the details and variations in the mode of antiseptically dressing a wound, and enumerates some of the most brilliant results obtained by this treatment. To become thoroughly familiar with the antiseptic treatment, Dr. Ch. spent some time in Edinburgh with Lister. He returned to France an enthusiastic admirer of Lister's doctrine, a firm believer in the antiseptic surgery which to introduce into the French hospitals then became the chief object of his life.

We congratulate both Mr. Lister and the French profession. The former could not have found a more devoted and zealous apostle for preaching his principles in France, and they could not wish for any better information about the antiseptic surgery than which is condensed by an elegant writer in this little volume. The pleasure we enjoyed in reading it would have

been complete if only the Continental publishers could be induced to print their books on good paper, and to send them out into the cold world dressed, cut and bound.

CONSUMPTION IN AUSTRALIA. *By C. E. Reeves, B.A., M.D., etc.* Melbourne. 1874.

This is a little book of 154 pages, in which the author discusses very clearly and fairly this disease as it occurs in that far off country. It is not a book on consumption as a disease, so much as it is a book on this disorder as it occurs in Australia. In treating of the influences that bring on consumption he says the deposit of tubercles is very rare. Most of the cases are inflammatory in their nature. The deposit of tubercles in other organs than the lungs is rare. He thinks the climate is more favorable for invalids afflicted with this malady than that of England.

THE STUDENT'S GUIDE TO HUMAN OSTEOLOGY. *By W. W. Wagstaffe, B.A., F.R.C.S., etc.* 12mo., pp. 349. Philadelphia. Lindsay & Blakiston. 1875.

The profession is to be congratulated on the appearance of any creditable book that will aid in the study and understanding of anatomy. Such a book is the little volume before us. It accomplishes one aim of the author, "to describe the bones of the human skeleton with accuracy, but without wordiness," very fully.

All the bones of the skeleton are in their outward appearance carefully described, mostly after the plan usually followed in such descriptions.

The account of the mechanical structure is made up to a large degree of the author's own observations. The book contains twenty-two double page lithograph plates of the bones, with red line boundaries of the insertion of muscles, besides many wood-cuts illustrative mainly of the mechanical structure of the bones and their development.

Very few errors, we are sure, can be found in the volume; so few we are not disposed to undertake the task of noting them.

INHALATION IN THE TREATMENT OF DISEASE: ITS THERAPEUTICS AND PRACTICE. A treatise on the inhalation of gases, vapors, fumes, compressed and rarified air, nebulized fluids and powders. By *J. Solis Cohen, M.D.*, etc. Second edition revised and enlarged, with many new illustrations. Philadelphia: Lindsay & Blakiston. 1876.

The title of this book suggests its wide scope. A careful examination of the text does not disappoint the reader. Dr. Cohen has made his work thorough and searching in every department. The book is divided into four parts. In the first the inhalation of airs, gases, vapors and fumes is considered; in the second the inhalation of nebulized fluids or sprays, and in the third the inhalation of powders. The fourth is devoted to a brief consideration of medicated atmospheres.

Under these several heads there is gathered an amount of information on the subjects considered that is not approached by any book we know of in the English language. Many writers in several languages have been laid under contribution; the periodical literature has been searched and used, and the whole work has been shaped and enhanced by the experience, the scholarship and good sense of this industrious American author.

There has been of late no little nonsense, both in and out of the profession, on the subject of inhalations. It has been the net by which many quacks have captured people — or their money, not often their diseases; it has been the pivot on which not a few previously very sane doctors have whirled until they were more than dizzy. The therapeutical value the measure possesses is not so great as the enthusiasts believe: it is far greater than the average practitioner has any idea of. Dr. Cohen has ably contributed to the placing of the subject on a basis of science for which he is honestly entitled to the thanks of the profession.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

A Practical Treatise on the Diseases, Injuries and Malforma-

tions of the Urinary Bladder, Prostate Gland and the Urethra. By S. D. Gross, M.D., etc. Third edition, revised and edited by S. W. Gross, M.D., etc.

Chemistry: General, Medicinal and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia, etc. By John Attfield, Ph. D., F.C.S., etc.

Compend of Histology: Twenty-four Lectures. By Heinrich Frey, Professor. Translated by Geo. R. Cutler, M.D., etc. Illustrated.

PAMPHLETS.

Transactions of the Medical Society of New Jersey, 1876.

The modern methods of Examining the upper air passages. By G. M. Lefferts, M.D., etc., being No. VI. of Vol. II., of "a series of American Clinical Lectures." Edited by E. C. Seguin, M.D., etc.

Translations.

ON A CASE OF CEREBRAL SYPHILIS: WITH CONSIDERATION OF THE DIAGNOSIS OF LESION OF THE CORPORA QUADRIGEMINA.

*Translated from the Italian of Fiori,**

By JAMES NEVINS HYDE, M.D.

On the seventeenth day of last February, Ricolfi Alessandro presented himself at the Medical Clinic of the Royal University of Turin. He was 33 years old, unmarried, and had been previously engaged in the provision business. At the time of his first appearance in the Clinic, while he was standing upon his feet, and the professor, in the presence of his assistants and students, was engaged in eliciting the facts concerning the previous history and actual condition of the patient, the latter

* Intorno a un caso di sifilide cerebrale per riguardo alla diagnosi della lesioni delle eminenze quadrigemelle; del Dott. Gian Maria Fiori, 3d Assistente alla clinica del Prof. Rovida a Torino. (*Giornale della R. Accademia di Medicina di Torino.* Aug. 10, 1876.)

was attacked by a very peculiar convulsive seizure. His neck was forcibly twisted to the left, to the extent of about one-fourth of its circumference; and at the same moment his entire body was rotated several times from the right to the left, as it were revolving upon its longitudinal axis. This attack lasted for but a few minutes, when the patient became completely restored to his former condition, and, having assured himself that all was over, continued to respond to the interrogatories that were put to him.

He was a man of good constitution, with a properly shaped cranium, and exhibited no anomaly of the osseous framework or the muscular system, which supported it. His intellectual faculties were unimpaired, and his words were accompanied by energetic and expressive gestures. He stated that his parents had enjoyed robust health, and that he had not suffered from hereditary disease. He had not been affected by any malady in infancy or childhood—nothing, in fact, had occurred to disturb the heedless life of pleasure which he had for some time led, though he had paid his devotions both to Bacchus and Venus. In 1863, however, he contracted a blennorrhagia, which in its course became complicated with orchitis. It was treated by baths containing various mineral and vegetable ingredients, and was only cured after relapses. No treatment was adopted for the relief of the discharge, which was, at the outset, quite severe, the result being that spontaneous cure resulted in from four to five months, leaving a urethral stricture of moderate degree. He suffered from sore throat during the ensuing year, which his attending physician considered to be a manifestation of syphilis, and treated with pencillings of the nitrate of silver, and the administration, internally, of pills (probably mercurial) of the nature of which the patient was ignorant. In 1866 he had manifestations in the vicinity of the anus, which the physician pronounced to be syphilitic mucous tubercles. These lesions disappeared in from fifteen to twenty days, after cauterization with the nitrate of silver, without internal medication. During the Carnival of 1873, he received a stroke with a sabre, in the posterior part of the left parietal region, near the sagittal suture. The resulting wound

was healed in ten days without grave consequences, leaving a cicatrix in the region named, which is still visible. It is linear, slightly depressed, two and a half centimetres long, and is directed obliquely from above downward, and from behind forward. In May, 1874, without any known cause and with no prodromata, he suddenly fell to the earth while taking a walk in the country. He was then unconscious, and had clonic contractions of the entire body, particularly of the left side, with marked traction of the left labial commissure toward the ear. This attack lasted for about ten minutes, resulting, however, in paralysis of the left arm and leg, which disappeared in eight days after blood-letting and blistering. One month afterward he suffered from another similar attack, and others followed at a like interval, until very recently, when the accesses became so frequent that they disqualified him from attending to any business. After the first two attacks, however, there was no loss of consciousness, and, up to the date of his admission to hospital, the contractions were generally limited to the muscles of the left side of the neck and face.

On the evening after his admission (February 17) the spasmodic attacks were repeated with unusual severity and frequency. Each was preceded by a peculiar feeling of faintness, which warned the patient of the approaching crisis, and gave him time to take precautions for his safety. It began with tonic contraction of the right sterno-cleido-mastoid muscle, thus the head was turned to the left; then suddenly followed tetanic contractions of the eyelids of both sides and the muscles of the cheek of the left side, with tonic contraction of the muscles of the left side of the neck, including the sterno-cleido-mastoid of that side. Almost at the same time could be noticed contractions, at first clonic and then tonic, of the left limbs, with slight and transient contractions of the right arm and leg. During the access the head remained forcibly twisted to the left, and somewhat inclined upon the side, notwithstanding the fact that the right sterno-cleido-mastoid, contracted at the outset, yielded and became flaccid as soon as the attack was precipitated. The globes of the eyes at this time were entirely concealed by the contracted lids; upon the separation of the lat-

ter, both eyeballs could be seen turned upward and to the left, their pupils being dilated. The left labial commissure was forcibly dragged toward the ear of the same side. The condition of the tongue, velum and uvula could not be observed. The pulse and respiration remained normal, and the condition of general sensibility almost normal. Although unable to speak, he was conscious of his condition, and heard what was said to him.

Each convulsion lasted from two to five minutes, and if, during its continuance, an attempt was made to turn the head to the right by decreasing the muscular contraction, the access was somewhat shortened. On the occasion of the first attack which happened after his admission to hospital, the patient had been seized with motor paralysis of the left arm and leg, with consequent flaccidity of the muscles supplying these limbs, and paresis of those of the left side of the face. There was also slight ptosis of the left upper eyelid. The frontal rugæ were pronounced on the right side, and absent on the left — on this latter side, also, there was a feeling of tumefaction of the cheek, and partial failure of movement of the jaw in the act of mastication.

Finally, after each attack, the patient could describe in words the sensations he had just experienced, and could move his head as he pleased. His eyes returned to their normal position, the pupils responding properly to the light. The traction upon the left labial angle disappeared; his tongue could be projected in the median line, and there was no deviation of the uvula or velum. General sensibility became also completely restored, with the exception of a sensation of pricking and formication in the left arm and leg.

The lesions of the cerebral nerves above described evidently pointed to some disease of the brain, and the complexity of phenomena demonstrated that its location was to be sought within certain limits.

Difficult as it may at first sight appear to determine the site of lesion, some of the symptoms point to it with sufficient distinctness. These are: the movement of rotation upon one axis, the deviation of the eyes to the same side, and the per-

fect hemiplegia of the limbs and face of that side, consecutive to tonic and clonic contractions.

But while the last corresponds to the ordinary form of hemiplegia from cerebral hæmorrhage involving the corpora striata, the optic thalami and the lenticular nucleus, it excludes the possibility of a lesion of the base of the brain, which would be accompanied by alternate paralysis of the face and limbs. The movement of rotation and the deviation of the eyes, on the other hand, when considered together, may be referred to lesion of a cerebellar peduncle, a cerebral peduncle or the corpora quadrigemina.

In order to arrive at a solution of the question which, stated in this manner, may seem exceedingly intricate, it will be well to notice, first, that we are not in position to form an exact idea of the nature and mode of the rotary motion observed in our patient. This movement, in point of fact, could be studied only upon one occasion, that viz., when the patient first entered the clinic, because, on that same day, the paralysis began to be declared which soon rendered the vertical position — and of course walking — impossible. During this single attack, however, the patient was observed in the act of walking, though the deviation of the eyes could not be noted; but the period of access was so brief that we had not time to determine what muscles were most interested in the phenomena. It was only possible to establish the deviation of the head to the left, and the twisting of the patient upon his left flank, with a restricted turning (almost equal to a rotation) upon his vertical axis.

These two facts, however, readily recall to mind the rotary movements obtained by Longet, Magendie, Schiff and others, in animals with lesion of the middle cerebellar peduncles; while they render it as less probable, that we had witnessed the movement of the circus-rider, observed by Magendie after lesion of the cerebral peduncle and the optic thalami. Such a movement rather, relying upon the probable explanation of the mechanism by which it is produced advanced by Schiff, would not be possible in man, whose anterior extremities are not used in the act of progression. For it could only be by unilateral

deviation of these, that the mammiferous quadruped, pushing forward the body by means of a regular movement of the posterior extremities, could accomplish the "circus-rider's movement," (*movimento di maneggio*,) or, as Moleschott describes it, "movement of the hands of a watch." But we should not hesitate upon this point if our case (like that of Stiebel, cited by Schiff himself,) did not present among other things this peculiarity, that the paralysis of the arm was more distinct and persistent than that of the leg. But it is easy to decide that this paralysis has no connection with that producing the lateral movements in animals, for it was complete in the left arm, while the right was entirely unaffected.

The rotatory movement, then, of our patient, is not comparable with the rotation of the mammals upon their longitudinal axis, which, it is generally admitted, occurs in consequence of lesion of the middle cerebellar peduncles. These peduncles, according to Schiff, act in cruceiform directions upon the rotating muscles of the vertebral column, and the direction of the movement of rotation is different according as the latter results from irritation or paralysis of the peduncular fibres. In the present case, the deviation being toward the left, we may suppose either paralysis of the muscles of the vertebral column of the right with prevalent action of those of the left side, or irritation of these last. Evidently we must accept the second hypothesis, because the movements made during the attack were of a convulsive character, and therefore the lesion should be sought for in the right cerebellar peduncle.

Other facts, however, are not consonant with such a diagnosis. The deviation of the eyes observed in our patient has not an exact correspondence with that observed by Schiff, following lesion of the middle cerebellar peduncle. Because, while the latter discovered that the eye of the injured side turned inward and downward, and that of the other outward and upward, the patient in our case presented a similar deviation in so far as that both eyes were turned to the left, while both were also turned upward: thus presenting a remarkable resemblance to the effects which Adamuk pro-

duced upon the ocular movements, by lesion of the corpora quadrigemina. The irritation of the anterior eminence of these bodies upon the right side, produces, according to this author, deviation of both eyes to the left, and vice versa. If the irritation is produced at a central point between the two anterior eminences toward their posterior limit, both eyes are still turned upward while the pupil is dilated. If now the excitation be continued for a somewhat longer time, the head is turned toward the side to which the eyes have been directed. These are precisely the phenomena presented by our patient. And moreover, a fact of great importance, we note the dilatation of the pupil, which represents a paralysis of the oculomotorius, associated with phenomena of irritation—a point to which Schiff does not refer in treating of ocular irritations by injury of the middle cerebellar peduncles. To this is to be added the circumstance that our patient after recovery, stated with great clearness that during his accesses he had never experienced any sensation of contortion of the spine, while yet he did perceive the dragging of the muscles upon the right side of the neck. It is clear that the movement of rotation of the eyes and head is most simply and clearly explained by the experiment of Adamuk.

Thus from the contraction with paralysis of the muscles of the face and limbs, we are led to establish a group of phenomena almost independent of those connected with the deviation of the eyes and head, because this second category of symptoms would be arrested at the period of transient irritation, making itself known by the attack, (excepting the paralysis of the *levator palpebrarum*.) And the graver lesion would be that associated with the muscles of the face and limbs. Possibly, also, the deviation of the eyes and head, if produced by irritation of the right anterior eminence of the corpora quadrigemina, would not have occurred except for lesions of the circulatory system, resulting from the action of a morbid principle at a point in the vicinity.

We should be therefore induced to look for the site of the lesion which produced the convulsive attack and the conse-

quent hemiplegia, at a point more or less near the quadrigemellar tubercle of the right side.

The central paralysis of the facial leads to the admission of a morbid focus in the cerebral peduncle. In the present case, also, we have to deal with a simple paresis, precisely such as ordinarily occurs from lesion of the cerebral peduncle. The central paralysis of the facial would not, however, remove the possibility of a lesion of the pons varolii, situated above the point of decussation of the fibres of the same nerve, such as would also be sustained in lesion of the middle cerebellar peduncle, in consequence of the relation which exists between the two, according to the observations of Brown-Séquard and Magron. But the complexity and character of the symptoms presented in the case of our patient, as well as the absence of the phenomena which are not ordinarily wanting in lesion of the pons varolii and the cerebellar peduncles lead to the exclusion of these organs—at least we are thus brought to the exclusion of a lesion of the superficies of the cerebral lobes, involving the partial motor centres of Hitzig, Fritsch and Ferrier.

It remains, then, quite probable that the lesion is to be sought partly in the quadrigemellar body and partly in the cerebral peduncle. Yet the site of the lesion which produced the hemiplegic symptoms cannot be exactly established, since there is great variety in the method according to which primitive lesions may be diffused and give rise to secondary alterations. Especially is this true in the present case, where the nature of the lesion renders probable the existence of several primary points of injury, and gives room for numerous complications not only, on the one hand, in the cerebral substance, but also on the other, in the cerebral arteries, if not indeed in the meninges and cranial bones.

Still the interesting fact remains that this pathological history corresponds, in one essential part of its details, to a physiological fact recently established by the experimental method, and which thus renders possible a diagnosis of lesion of the quadrigemellar body. And though we have had the good fortune to cure our patient, and thus failed of the necro-

scopic corroboration which might have followed, perhaps our diagnostic reasoning may be profitable for others in establishing the relation between physiology and pathology.

Although the phenomena in question were at the outset of sudden occurrence, and accompanied by a total loss of consciousness, yet the peculiarity of the attacks, at first repeated only after a long repose, and subsequently after gradually decreasing periods, (with intervals of perfect health,) as well as the initiative symptoms which preceded the paralysis, enable us to exclude with readiness the occurrence of cerebral hæmorrhage. Capillary hæmorrhage can only be considered here as consecutive to embolism or thrombosis. Apoplecticiform seizure, and the other disorders having a chronic course which apoplecticiform disease may occasion, could result only from simple atheroma of the cerebral arteries. The condition of our patient rendered the last named hypothesis exceedingly improbable, nor would such a supposition be supported by similar alteration of the temporal artery and aorta, for here no such alteration existed.

We may then safely exclude thrombosis, embolism, and aneurism of the cerebral arteries. There remain merely the chronic lesions of the cerebral substance, in which a diagnostic distinction is attended with great difficulty, in consequence of the multiplicity of diseases capable of giving origin to apoplecticiform attacks. These are, disseminated sclerosis, encephalitis, with chronic abscesses, ischæmia, and partial necrosis, and, lastly, tumors and syphilide of the brain.

In this hasty attempt to establish a differential diagnosis between all these diseases, some of which require but enumeration, we exclude all others in the concluding remark that from the first day of observation of this patient it seemed more than probable that we had to deal with a syphiloma. The symptoms, however, did not exactly correspond to either of the three forms of cerebral syphilide indicated by Heubner. Evidently they did not answer to the first, in which the epileptic attacks are accompanied by intellectual alterations. No less could they be assigned to the third form, in which the cerebral syphilide produces a progressive paralytic dementia.

The resemblance in this case was rather to the second form, which is characterized by true apoplectic attacks, with consecutive hemiplegia, generally involving the cerebral nerves, intercurrent states of somnolency and, very often, monolateral symptoms of irritation. Yet, the first two attacks only could be described as really apoplectic, in which, it is true, loss of consciousness was not wanting, and the hemiplegia required several days in order to disappear. The last attacks had rather the aspect of epileptiform convulsions without loss of consciousness, which may occur in the more irregular forms of epilepsy. But the phenomena of monolateral irritation, and the lesion of the cerebral nerves, are sufficiently marked to enable us to inscribe our case in the second category.

The syphilitic nature of the lesion being admitted, it is easy to explain all the subsequent phenomena, including the diffusion of the excitation even to some of the muscles of the right side by the possibility of arterial complication. The latter, possibly, produced the first attack by the occurrence of hæmorrhage, while the latter seizures could have resulted from a circumscribed encephalitis as the sole morbid condition without the need of the syphiloma. And this appears quite probable from the lack of the initial symptoms of tumor, and especially from the absence of cephalalgia.

The diagnosis of cerebral syphilide being thus established the treatment was naturally determined; and the criterion afforded by the therapy confirmed the diagnosis in a most luminous manner. When Ricolfi first presented himself at the clinic, he had already taken for a considerable time the bromide of potassium in average doses of 8 grammes daily. After his admission it was decided to make further trial of this salt in larger doses. At the same time chloral was exhibited, and hypodermic injections of the sulphate of atropia were employed, in the effort to procure temporary respite from the tumult of motor disturbances. Recognizing, however, the complete inutility of this treatment, a few days after the diagnosis was established as at least probable, recourse was had to mercury, which was at first introduced into the system in the form of calomel by hypodermic injec-

tions. Afterward, the biniodide was employed in pillular form. Soon the iodide of potassium was added to the mercurial, and, under this anti-syphilitic treatment, within a short space of time, and in a marvellous manner, the attacks began to diminish in frequency and intensity, and finally completely ceased. The patient, in fact, left the clinic on the 15th of April in a condition of perfect health.

Medical News and Items.

A VETERAN.—Prof. V. Sigmund, of the University of Vienna, records the case of an old soldier, dying at the age of eighty-three years, “a hale old man,” who had enjoyed immunity from every trace of constitutional syphilis, although he had undergone infection as many as TWENTY-FOUR TIMES during his life time.—*Practitioner*.

A NEW UTERINE SOUND.—Dr. Murray presented to the Obstetrical Society of London, May 3, 1876, a flexible vertebrated sound, which could be introduced limp, and it can thus follow any irregularities of the uterine canal. After introduction it can be made firm in its course by means of a screw in the handle. Adhesions and extreme flexions can thus be detected.—*Ex*.

INHALATION OF ETHER.—D. C. writes as follows: Upon suggestion of trial, by an undergraduate of Chicago Medical College, W. H. Smith, I have found a great help to one of the many inconveniences of inhaling ether. In order to prevent the nausea which often follows the anæsthesia, the patient, besides avoiding eating for some hours before inhalation, should take from one to two ounces of brandy just before commencing the process. Suggestion may be of benefit to other country practitioners.

IN SOME parts of China, doctors are paid a salary per family, so long as the members of it are in health; when sick the doctor's pay is stopped. Think of American Homœopathists being paid in that way!!

DR. E. H. PRATT, of Wheaton, Ill., recently reported to a Homœopathic Medical Society the case of "a mother who had given birth to a child with a small Homœopathic pill in its throat, which had been occasioned by another child having swallowed a number of little pills, which frightened the mother during pregnancy!"

CONSANGUINEOUS MARRIAGES.—At the Deaf and Dumb School, at Barcelona, Spain, there have been admitted two hundred and fifty-three children, during thirty-one years; of these only fifteen were the issue of consanguineous parents. This constitutes very small ground for the belief of the danger of such alleged misalliances.—*Independencia Medica*, April, 1876.

THE HOMŒOPATHIC QUESTION.—The committee of nine, to whom was referred the question of Homœopathy in the University, reported, the chairman, Dr. Foster Pratt, reading the report. The committee first presented a history of the controversy in the University over the question of Homœopathy and its introduction out of the litigations in the Supreme Court touching the question. The majority of the committee, Messrs. Pratt, Johnson, Andrews, Jerome, Chittock, Brown and Baker, recommended the adoption of the following resolutions:

Resolved, That we are not content with the existing situation of the medical department of the University, because in our opinion it is not calculated to maintain or advance medicine as a science, nor is it consistent with the honor or interest of the profession.

Resolved, That a State under our form of government cannot successfully teach either medicine or theology, and that

the medical profession ought to be its own teacher and the guardian of its own honor.

Resolved, That we regard all legislative interference with the government of the University as unconstitutional, wrong in principle and harmful in its results.

Resolved, That section 4 of the constitution of this State Society be amended so as to read as follows, viz.: "Section 4. The resident members should be elected by vote of a majority present at any regular meeting, their eligibility having previously been reported upon by the Committee on Admission: *Provided*, That no person shall be admitted to membership who practices or professes to practice in accordance with any so-called 'party' or sectarian school of medicine, or who has recently graduated from a medical school whose professors teach or assist in teaching those who propose to graduate in or practice irregular medicine."

The resolutions are favored by the minority, Drs. Cutler and Hamilton, except the last, which they opposed.

The submission of the report was followed by an animated debate, Drs. Frothingham, Rynd and McLean opposing the resolutions, and Drs. Pratt and Post upholding them.

The first three resolutions were finally adopted by a vote of about sixty to thirty. The fourth resolution was laid over for one year, this being the usual course with amendments to the constitution. Prof. Frothingham thereupon announced that he would no longer stay in the society. The resolution changing the constitution was ordered to be sent to the local societies, and their views were asked for the guidance of the next convention.—*Daily Press*.

STEVENS' TRIENNIAL PRIZE — 1879.

This prize, established by Alexander H. Stevens, M. D., amounts to two hundred dollars. The questions for 1879 are as follows:

I. Bacteria, and kindred organisms in their relation to disease.

II. Human Excreta, as a cause of disease; the diseases produced therefrom, and their prevention by hygienic means.

Competing essays on either of the above subjects are

expected to give an account of our present knowledge, and also the results of personal investigation. The essays must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1879. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced at the annual commencement of the College, in March, 1879.

This prize is open for universal competition.

J. C. DALTON, M.D.,
Secretary of the Committee.

MITCHELL, IND., Sept. 26, 1876.

The Second Annual Meeting of the Indiana, Illinois and Kentucky Tri-State Medical Society will be held in the city of Vincennes, Ind., Nov. 21, 1876. Prof. Byford, of Chicago, will deliver an address.

G. W. BURTON, *Rec. Sec'y.*

Professor Leidesdorf, of Vienna, who was summoned to Constantinople to be consulted about the Sultan's disease, received the modest fee of £3,000 for his consultation.

The medical faculty of the University at Heidelberg, Germany, has recently sustained the loss of two members who stood in the foremost rank of the German surgeons. On Aug. 17, Prof. Von Chelius died at the age of eighty-three years. During his long and brilliant career he had attained a world-wide reputation as a teacher, diagnostician and operating surgeon. On Aug. 28, Heidelberg and the medical profession were called to mourn the death of another surgeon, equally eminent for his achievements in advancing operative surgery—Prof. Gustave Simon, then only fifty-two years of age, died of pulmonary phthisis. He was a most amiable, kind-hearted

man; he was not a brilliant lecturer, but a splendid teacher, a patient and keen observer, a bold, though not reckless operator, and the master in the operation for vesico-vaginal fistula.

We have received the annual announcement of the College of Medicine of the Syracuse University, and notice that the revised course of instruction of the Boston school is closely copied in this young institution. There are the three courses of instruction, each extending from the first of October to the last of June, and divided into two terms; the studies graduated to the three courses of instruction; the instruction given by lectures and recitations; the examinations from time to time during the college study, and the assurance of preliminary English education by the requirement of either an academical degree or an examination as a condition to matriculation. The final examination is made by a board of censors who are not members of the faculty. When Harvard adopts this commendable feature she will be obliged to borrow from her youthful neighbor.

General Cialdini, the unpretending medical student who, in the year 1832, occupied wretched quarters in the Rue de la Harpe, and there translated into Italian the works of Velpeau and other authors, is about to revisit Paris in the capacity of Italian Minister.—*Gaz. Hebd.*

Obituary.

JULIAN S. SHERMAN, A. M., M. D., Prof. of Orthopedic Surgery and Diseases of the Joints, in the Chicago Medical College, died on the 16th of August, 1876.

Prof. Sherman was born in Quincy, Ill. At the age of fourteen he entered the Russell Military Institute at New Haven, Conn., where he remained two years. He then entered St. Paul's College, Mo., where, in due time, he received the two degrees of Bachelor of Arts and of Master of Arts. He

commenced the study of medicine with Drs. Johnson and Andrews, of Chicago, and graduated in the Chicago Medical College in 1864. He entered upon practice in the same city, and soon developed such a talent as a lecturer, and so much capacity as an orthopedic surgeon, that he was made Professor of his favorite branch.

Prof. Sherman made numerous improvements in his department. Among his inventions were a superior spinal supporter for Pott's Disease, and an improved brace for disease of the knee, doing away with some of the serious objections which lie against the instruments made in New York. Soon after he commenced his career as a successful lecturer in the College, he had the misfortune to be attacked with an abdominal abscess, which, in a great measure disabled him for duty for two years. Before he recovered from this he met with an accident by the explosion of some chemicals in a bottle which destroyed one eye, and, in connection with the previous trouble, seriously impaired his health. His death has deprived his colleagues of a genial and noble-hearted co-laborer, and the College of an able and attractive lecturer, and has carried sorrow to a large circle of true friends.

E. A.

Correspondence.

[The following was received too late for insertion in the proper place.]

CHICAGO, October 18, 1876.

TO THE EDITOR OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER — *Dear Sir:* Will you kindly afford me space in your journal for a personal purpose?

In the June number of the JOURNAL AND EXAMINER for the present year there appeared an article written by Dr. A. B. Newkirk, of Hyde Park, Ill., entitled, "A Case of Vesico-Vaginal Fistula and Laceration of the Anterior Perineum," etc., in which my name is mentioned in such a connection as to produce an erroneous impression as to my views and opin-

ions in regard to the case. This impression I desire, through your courtesy, to correct.

The writer of the article referred to, after detailing the history of the case, states that he found, on examination, a vesico-vaginal fistula, a closure of the urethra, several ulcerated surfaces on the vagina, and a laceration of the perineum. He next proceeds to give his conclusions as to the cause of these lesions, attributing them to "the maladroit use of forceps" by a "Dr. J. (homœopathist)," who had attended the patient in her last confinement, six months previously. He then says, "A. H. Mann, M.D., of South Chicago, J. E. Morrison, M.D., of Hyde Park, J. Ramsay Flood, M.D., Assistant Physician of the Woman's Hospital of the State of Illinois, and A. Reeves Jackson, M.D., Surgeon-in-Chief of the same institution, were called in consultation and made a careful examination of the case, *and fully confirmed the views above expressed by myself as to the nature and probable cause of the existing lesions,*" etc. (The italics are mine.)

Inasmuch as this passage does not fairly and candidly represent what took place at the only consultation at which I was present, and supposing that the erroneous character of the statement was the result of either forgetfulness or inadvertence on the part of Dr. Newkirk, I wrote him, requesting him to make the proper correction. To my surprise, he declined doing this act of simple justice, and I am therefore impelled to correct his misstatements and omissions myself.

I visited Mrs. Hague, the subject of Dr. Newkirk's report, on the 28th day of January last, for the sole purpose of aiding in the decision of the question as to the propriety of a surgical operation for a vesico-vaginal fistula. The only physicians present were Drs. Newkirk, Flood and myself. The patient was extremely anæmic, and so feeble that it was necessary for others to lift her from one part of the room to another. On examination I found a vesico-vaginal fistula and a laceration of the perineum, as stated in Dr. Newkirk's report. *I also found the os and cervix uteri extensively destroyed by ulceration*—as *not* stated in the report. In addition, the body of the uterus, the cervix (and especially its vaginal portion) were

enlarged, and the organ was firmly adherent to the surrounding structures. The extreme upper part of the vagina, as well as the supra-vaginal portion of the cervix uteri, were the seat of marked induration. An abundant watery discharge, tinged with blood and horribly fetid, exuded from the os uteri and the visible ulcerated surface. This disease of the womb I believed, and stated at the time, and still believe, to be cancerous. This opinion was concurred in by Dr. Flood, Dr. Newkirk dissenting. We all agreed that any operation for the cure of the fistula would be highly improper. I fully coincided with the opinion expressed by Dr. Newkirk during the consultation, to the effect that the fistula of the bladder and the rupture of the perineum were not the result of the uterine disease; *but I expressed no opinion as to how or when or by whom these conditions had been produced.*

To my mind, the important feature of the case was the existence of a malignant disease of the uterus, from which the patient was dying, and from which she soon afterwards did die. To the mind of Dr. Newkirk, however, this was of so little consequence that the fact of the existence of any uterine disease whatever is not even mentioned. On the contrary, to him it seems only important to show, and to prove by others, that "Dr. J. (homœopathist)" used the forceps maladroitly.

Yours, respectfully,

A. REEVES JACKSON.

[Owing to an error this letter could not appear in its proper place.]

THE ARKANSAS STATE MEDICAL ASSOCIATION, AND THE
"JUDICIAL COUNCIL" OF THE AMERICAN MEDICAL ASSO-
CIATION.

TO THE EDITOR: I am the president of the Arkansas State Medical Association, a society which for five consecutive years has been officially recognized by the American Medical Association. Its right to such recognition was called in question before the "Judicial Council," at Louisville, in May, 1875. At this meeting of the American Medical Association, the "Council" fully sustained the Arkansas Association, and its

delegates were accorded the right of registration. The following extracts from the published "report" of a delegate from Arkansas, embraces, with other matters of interest, the decision of the "Council":

"We, Dr. Thomas Smith and myself, arrived at Louisville on Monday, at 8 o'clock in the evening, and at once repaired to the 'Galt House,' where we understood a large number of the delegates to be assembled, together with the officers of the Association. On presenting ourselves to the permanent Secretary, with credentials, for registration, we were informed by him, and also by the Chairman of Committee on Credentials, that as there was considerable trouble in the medical profession in Arkansas, it had already been decided as best not to admit any of the delegates from that State, but that the whole question would be submitted to the 'Judicial Council' and that a report upon the subject would be presented at that meeting of the American Medical Association.

"To this proposition we at first strenuously objected, claiming that we had no case before the American Medical Association; that we came not for the purpose of making war upon the other delegation who were members of county societies who had severed their connection with the Arkansas State Association, and proposed to interfere with them in no way, notwithstanding the fact that by their hasty action in withdrawing from the State Association, they had cut themselves off from the right of appeal; but simply to represent the Societies whose Delegates we claimed to be.

"Having confidence in the justice of our cause, in the integrity of the gentlemen composing the 'Judicial Council,' and as the two gentlemen named remained firm in their purpose, we finally acceded to the proposition that the matter should be referred to the 'Council' for adjudication, believing that our case could withstand the scrutiny of fair minded men, and with the hope, also, that a decision coming from a higher body than the State Association might be the means of reconciliation of all differences, and be accepted by dissenting members as a finality. * * * * *

"At a late hour that evening I again presented myself to

the Secretary, offering initiation fees both for Dr. Smith and myself, and demanded registration. This privilege was denied us, on the ground that objections had been raised against our admission; and the excuse offered when asked why the other Delegates had been allowed to register when we had been given assurances to the contrary, was that '*he had to register them because no objections had been offered against them.*'

"I desire to call the especial attention of the Society to this part of my report, that it may become a matter of record that, on the authority of the permanent Secretary, no objection or opposition was made to other medical gentlemen of this State claiming the rights of Delegates until we, ourselves, had been protested out of representation.

"I then inquired of the Secretary if I possessed the right to enter objections. He informed me that I did—'that any one could do so.' I then, very hurriedly, as the Secretary was about to close his books, wrote off and filed a protest, but as I was unable to make a copy, I will here reproduce it from memory, as correctly as possible. To this protest I signed Dr. Smith's name, which action on my part afterward received his hearty approval, viz.:

"We, the undersigned, Delegates from the 'Arkansas State Medical Association' and 'Little Rock and Pulaski County Medical Society,' do hereby enter our solemn protest against the reception of the gentlemen named as Delegates to the 'American Medical Association,' namely: Dr. P. O. Hooper, 'College of Physicians and Surgeons,' Little Rock; Dr. J. H. Lenow, 'College of Physicians and Surgeons,' Little Rock; Dr. D. A. Linthicum, 'Medical Institute,' Phillips County, for the following reasons, to-wit.:

"*First*—Said gentlemen have publicly withdrawn from the 'Arkansas State Medical Association.'

"*Second*—The local societies which they represent have adopted resolutions denouncing and repudiating the said 'State Medical Association' and refusing to affiliate with any who sustain the action of a majority of that body.

“*Third*—These resolutions were published in both the medical and secular press throughout the country.

“*Fourth*—The ‘plan of organization’ of the ‘American Medical Association’ provides ‘that members shall consist of Delegates from permanently organized County Societies, and such District Societies as are represented in the State Society,’ etc.

“*Fifth*—We claim that these gentlemen having severed their connection with said State Society, and being no longer represented therein, they are not, under the Constitution, entitled to representation in the ‘American Medical Association.’

(Signed,)

“THOMAS SMITH, M.D.,

“J. A. DIBRELL, JR., M.D.’

“A consultation among the gentlemen hereinbefore mentioned seemed to have been held over this paper, for I was soon informed by several gentlemen, including the Secretary, that *I* would be allowed to register as Delegate from my local Society, but that Dr. Smith, from the State Society, would be excluded. This proposition I emphatically declined, for obvious reasons, and so matters stood until the next day—the first of the meeting—when the Secretary read off the names of three or four hundred Delegates and permanent members, including those of Drs. J. H. Lenow, P. O. Hooper and D. A. Linthicum, but omitting Dr. Smith’s name, and also my own.

“After the reading was concluded, the Chairman of the Committee on Credentials arose and said that the Delegates from the ‘Arkansas State Medical Association’ were rejected, and made a motion that the matter be referred to the ‘Judicial Council,’ which motion was adopted.

“From this time until Wednesday, night at 11 o’clock, we were five times summoned to appear before the ‘Judicial Council,’ and on each occasion waited for hours without being once called into its presence. At this hour we were informed that the Arkansas question had been decided, and that our evidence was not required, as no case had been made against the ‘Arkansas State Medical Association.’ On Thurs-

day the 'Judicial Council' presented a report, from which the following is an extract, viz.:

“‘*Resolved*, That the Delegates from said State Medical Association (Arkansas) should be admitted to proper registration at this meeting of the ‘American Medical Association;’ also, that the protest of the local Societies of Arkansas be referred back to their State Society for adjudication.’ * * *

“Respectfully submitted,

“J. A. DIBRELL, JR., M.D.”

Little Rock, Ark., June, 1875.

The “trouble in the medical profession in Arkansas” arose from a difference of opinion concerning the eligibility of an applicant for membership in the Arkansas State Medical Association. This applicant, in strict conformity with the rules of the Association, was finally admitted to membership, when the members who had opposed his admission withdrew in a body. From this dissatisfied minority sprung the “objections” to the delegates representing the State Medical Association of Arkansas, at Louisville, in May, 1875.

At that meeting of the American Medical Association, the “Judicial Council” rightfully assumed that it was beyond its province to in any manner consider the *merits* of the question involving dissatisfaction in medical circles in Arkansas, but was bound by every rule of right to endorse the action of the State Medical Association, as against a dissenting minority. Further, that “dissenting minority” was very properly referred to its “State Society” for an adjudication of its questions of grievance.

After the meeting of the American Medical Association, in May, 1875, instead of formally presenting their complaints before the Arkansas State Medical Association, the gentlemen composing the dissatisfied minority adopted the cunning device of organizing what they artfully termed “*The Arkansas State Medical Society*,” thus placing themselves in open hostility to the express direction of the “Judicial Council.” Delegates from this so called “State Society” were duly dispatched to Philadelphia, and, so far as is known, without question were allowed registration at the last meeting

of the American Medical Association in that city. But when the delegation from the *State Medical Association* of Arkansas asked the privilege of registration it was denied them. Diligent inquiry failed to elicit any satisfactory explanation of this extraordinary refusal of a hitherto conceded right. They were merely informed that a "protest" against their admission had been placed in the hands of the "Judicial Council" by the delegates from the *Arkansas State Society*! The controversy between the Arkansas State Medical Association and the persons constituting the "*State Society*" had been decided a year before, adversely to the latter, by the "Judicial Council;" when a reversal of its former verdict contemplated the destruction of a State Medical Association, ought not the "Council" to have been able to present something more than a mere "protest" in explanation — especially when that "protest" emanated from known enemies of the Association doomed to annihilation?

The Arkansas State Medical Association, notwithstanding, maintains its organization, and its delegates will present themselves again, demanding registration, at the next meeting of the American Medical Association, in Chicago, and it remains to be seen if its members shall be disfranchised and disgraced without good and sufficient cause being shown.

This is one of the questions that the members of the American Medical Association must be prepared to consider at their next meeting.

Respectfully,

W. H. BARRY, M.D.

Little Rock, Ark., Sept. 20, 1876.

Summary of Progress in the Medical Sciences.

I. THERAPEUTICS.

1. *Oleum Terebinthinae in the treatment of Diphtheria and Tonsillitis.* PEA-BODY. (*Medical and Surgical Reporter*, September 9.)

P. advocates the above remedies both in tonsillitis and diphtheria. In one hundred and twenty-four cases of tonsillitis and ten of diphtheria treated in this way during ten years, the results were uniformly successful. He considers the turpentine stimulant an antizymotic in diphtheria. The following prescription is advised:

R	Oil. Terebinthinae	-----	3 ij
	Pulv. Potass. Chloratis	-----	3 ij
	" Sacch. Albi	-----	3 ss
	" Acaciae	-----	3 ss
	Aquæ	-----	3 v

M. Sig. Shake well. Tablespoonful each hour or two until inflammatory symptoms subside, then less often.

In severe cases, if the patient is not relieved inside of twenty-four hours, forty-eight grains of sulphate of quinine are to be added to the emulsion of turpentine. To be taken as before—each two hours, or alternately with twenty drop doses of tr. muriate of iron each two hours. J. S. K.

2. *Local Use of Cold in Abdominal Inflammations.* EADS. (*Norwich Medico-Chirurgical Society*.)

E. strongly advocates the local use of cold to the abdomen in abdominal inflammations, if agreeable to the patient. After showing, by numerous quotations from standard authorities, that this use of cold is recognized, but not recommended, he cites from cases in his practice where its use was followed by positive beneficial results.

The method of application recommended is by bladders half filled with broken ice, to be removed as soon as they cease to be agreeable.

"The modus operandi is, no doubt, to abstract heat, to benumb exalted sensibility, and to contract the dilated and semi-paralyzed vessels; and its especial effects have seemed to be to diminish abdominal tension, to control the volvulus writhings of the bowels, and thereby to relieve both pain and tenderness."—*London Lancet*. J. S. K.

3. *Injection of Quinine in Gonorrhoea.* RADHA NAUTH, Roy. Assistant Surgeon. (*Indian Med. Gazette*.)

N. says: "I have invariably found the disease yield, both in its acute and chronic stage, under its influence. It acts as a tonic and astringent to the

mucous membrane of the urethra. I have also used it in some cases of cystitis with much benefit. I generally use it dissolved in dilute sulphuric acid, mixed with rose water. Two grains of sulphate of quinine dissolved in eight or ten minims of dilute sulphuric acid, and mixed with an ounce of rose water—to be used twice for injection. At the same time I give copaiba mixture to my patients.”

“In almost all cases I have found it acts like a charm. The disease is generally cured within a week, but chronic cases take a longer time.”—*Nashville Journal*, Aug. 26.

J. S. K.

4. *A New Therapeutic Action of the Salicylate of Soda.* C. F. KUNZE.
(*Deutsche Zeitschr. f. Pract. Med.; Allg. Med. Central Ztg.*, 59, 1876.)

The author has tried the salicylate of soda in two cases of gout with so excellent a result that he is tempted to say: “We have in the salicylate of soda a remedy which, within two or three hours, relieves the gouty patient of all pain. The two cases upon which I base this assertion belong to the regular true gout. Every spring the patients had an attack which lasted from two to three weeks. Both patients, one sixty-seven years, the other forty-five years of age, exhibit the typical picture of a gouty person. They are plethoric, well fed, and they love wine and beer.”

The older patient is the proprietor of a hotel, who has had the podagra since fifteen years. The balls of the great toes are thickened and the calcareous deposits can plainly be felt; the ankle joints also are thickened. The attack of the gout regularly returned every year; the most intense pain lasted continuously from six to eight days, then it gradually subsided, and after four or six weeks all painful sensations had left the patient so that he could go out again. The last attack began three weeks ago. The younger patient has been subject to gout since five years. Three years ago he had an attack of apoplexy with hemiplegia of the right side, from which he recovered so far that he can use his fingers for coarse work. The podagra visited him regularly every year about Easter; its last visit was three weeks ago. The author had attended him in all previous attacks of the gout, but was not called upon the last time until the most terrible pain had continued already for two days.

Each patient took one drachm. (four grammes,) of the salicylate of soda in one dose. After three hours there was not a sign of pain, but they were still red and glistening as before. The whole body was covered with a profuse perspiration. The second patient had tinnitus aurium, and a dullness of hearing to such a degree that he could scarcely understand a word. Both patients slept uninterruptedly the whole night; on the next morning no spontaneous pain, but pressure on the swollen joints and attempt at walking occasioned a slight soreness. The noises in the ear disappeared during the morning; appetite good, thirst slightly increased, pulse quiet, urine scanty and highly colored. For ten days each patient received half a drachm. (two grammes,) of the remedy and was strictly prohibited from using the affected limbs. The pain did not return, the sleep was undisturbed; only the swelling of the balls

of the feet persisted, but receded readily under the mild pressure of a flannel bandage. Besides the above remedy the patients took a daily draught of Friedrichshaller bitterwater for the constipation.

5. *The Alcohol Dressing* BOSLEE. (*Bulletin de l'Acad. de Méd. de Belgique* T. x. 1876.)

The author preferring this dressing to that recommended by Lister, employs simply a camphorated alcohol at 20 degrees. Charpie saturated with alcohol, is simply laid over the parts where there is solution of continuity, in ordinary wounds, or those following amputation. If reunion is impossible, pledgets of the lint are insinuated between the lips. Over all is applied a compress and bandage. Before proceeding to bring the parts together, it is well to use the alcohol as a lotion over the entire surface. An open suppurating wound is filled with the charpie saturated with alcohol, care being taken to see that all sinuosities are kept dilated by the same means. A piece of rubber or oilcloth will prevent evaporation. If the wound is large, the dressing should be renewed at night, and the alcohol should be then diluted with water in order to avoid the delirium which is doubtless occasioned by the absorption of the liquid. But this latter accident never occurs upon a granulating surface. The alcohol favors immediate union. In obliterating the vessels of small calibre, whose orifices communicate with the surface of a wound, accumulation of blood is prevented in the deep tissues—an occurrence which often prevents union by the first intention. Inflammation is thus also prevented. Slight compression is often necessary to obtain the end in view. The wound and the dressing never emit a disagreeable odor; the latter is simple, clean, and readily applied; is never painful, and prevents the pus from becoming putrid.

6. *Toxic Properties of Glycerine.* DUJARDIN-BEAUMETZ. (*La France Médic.* No. 62.)

The author's researches were conducted in view of the tendency which exists to employ glycerine internally in large doses, as for example in diabetes. According to Bertholet this substance is a triatomic alcohol, and should therefore produce effects identical with those produced by alcohol. The conclusions are as follows:

1. Chemically pure glycerine, when introduced beneath the skin of a dog in doses from eight to eighteen grammes per kilogramme of the weight of the animal, will determine fatal symptoms in twenty four hours.

2. The ensemble of toxic effects, (acute glycerism,) is, within certain limits, comparable to those of acute alcoholism.

3. The necroscopic lesions in acute glycerism are analogous to those of alcoholism, which leads to the conclusion that the toxic action of the two bodies is almost identical.

4. In a therapeutic point of view, the introduction into the economy of large quantities of glycerine is not without danger.

We should therefore employ glycerine internally with caution, and

not lose sight of the fact that glycerine, like alcohol, can produce favorable or unfavorable results, according to the dose and mode of its administration.

7. *Air as an Anæsthetic.* DR. P. D. KEYSER. (*Phil. Med. Times*, July 22, 1876.)

K. speaks very highly of air as an anæsthetic in small minor operations. He says: It is to my mind one of the simplest, and at the same time one of the most beneficial agents in small operations about the eye that have been presented to the profession; its application being very easy, requiring no recumbent position on the part of the patient, calling for no apparatus for its administration, and being perfectly free from any of the disagreeable effects of ether or chloroform.

To produce the proper effect the patient must open his mouth, breathe freely, quickly and deeply, and after a few seconds or minutes of such steady, continuous breathing, the symptoms of partial anæsthesia supervene, as is evidenced by the absence of feeling on pinching or pricking with a pin. The anæsthetic effect passes almost immediately away, and the patient feels no pain in the operation if done dexterously and without hesitation.

Any one interested in the subject I would refer to an article by Dr. Bonwell, on "Air as an Aesthetic," in the *Pennsylvania Journal of Dental Science*.—*New York Med. Journal*, Sept., 1876.

J. S. K.

8. *The Combined use of Morphia and Atropia in Spasmodic Asthma.* OLIVER. (*The Practitioner*, February, 1876.)

The use of the combination of morphia and atropia, by sub-cutaneous injection in spasmodic asthma, Dr. Oliver maintains are superior to morphia alone, in that their good effect is more speedy and complete, and that they produce no gastric disturbance, that they can be safely used, very frequently without injury to the general health, both as a prophylactic and as a curative means, and that the injections are followed by very speedy relief, five, and at the farthest, twenty minutes being sufficient to produce relief.—*Journal of Nervous and Mental Diseases*, July, 1876.

J. S. K.

II. PRACTICAL MEDICINE.

1. *Rheumatic Tetanus cured by Salicylic Acid.* WUNDERLICH. (*Arch. d. Heilkunde* XVII., 5.)

The excellent results obtained from the use of salicylic acids in cases of articular rheumatism, induced Dr. W. to give the remedy a trial in a case of tetanus of a rheumatic, not traumatic, origin. The patient had been thoroughly drenched, and in the course of one week the tetanic rigidity

gradually extended over the muscles of the face, the neck, the back, the abdomen and the lower extremities. All these muscles were in a state of continuous contraction which could not be overcome by passive or active motions. The sensorium was clear; the sensibility of the skin was not altered; the respiration was regular, though superficial; pulse, slow; temperature, normal. The patient took half a gramme (7 grains) of salicylic acid every hour, which was rather difficult to administer, on account of the firmly closed jaws. After seventeen doses a marked improvement was noticed; the patient could open his mouth better, and the muscular contraction of the abdomen and back was less rigid. The acid was continued in the same dose every two hours, with a good effect on the relaxation of the muscles; but after the second batch of seventeen powders the patient had a ringing in the ear and a dullness of hearing to such an extent that the salicylic acid had to be discontinued. The following morning the patient was worse; the muscles of the whole body were rigid and painful; the respiration difficult. At once the acid was given again every two hours, and after the fifth dose the patient began to feel better, and continued to improve until he was perfectly well. He took $53\frac{1}{2}$ grammes of salicylic acid within eighteen days.

2. *The Crepitant Rôle—its Nature and Conditions of Production.* W. H. WORKMAN, M.D. (*Boston Med. and Surg. Jour.*, Aug. 3, 1876.)

If artificial respiration be made upon a cadaver which is free from disease, the respiratory sounds will be the same as in health.

If by removal of the chest walls and costal plura the lungs are allowed to collapse, artificial respiration gives a sound somewhat finer and dryer, but otherwise identical with the crepitant rôle which is heard only during inspiration.

This sound depends upon two conditions: *First*, Abolition of vesicular spaces by contact of the vesicular walls; *Second*, entrance of air, suddenly separating walls and restoring spaces.

Physiology furnishes two examples of crepitant rôle: *First*, During the first deep inspiration after one has lain quietly upon the back; and, *Second*, in the infant when the atelectatic lungs are aerated.

In 1872-3, Cornil and Graucher, Paris, injected melted tallow into the lung tissue through a small trocar, producing a solid nodule impermeable to air. Artificial respiration produced a crepitant rôle in the neighborhood of this nodule, heard during or just at the end of each inspiration. A similar but still more marked result was produced when the lung was uncovered.

In the second experiment the tallow was injected into the pleural cavity, compressing the lung by a hard mass, at the circumference of which the rôle was heard. The same was produced by the introduction of bits of wood into the fissure between the lobes of the lung.

These various observations show that the rôle may be produced by various means, which compress the alveoli during expiration and allow their sudden expansion during inspiration.

Those diseases which produce this physical condition of the lung tissue at some stage, though varying greatly in their pathological condition, produce the râle at that stage of the disease.

If we consider the diseases in which the râle occurs, we find very diverse pathological conditions, but in all a condition analogous to the one mentioned.

In croupous pneumonia the râle is not heard during congestion, but after exudation has commenced, and certain portions have been solidified.

Hæmorrhagic infarction and tumors give a condition analogous to that of the first experiment, and here we have also well marked râles.

In pleuritis the compression is external to the lung, and, as in the case of the second experiment, we have râles, but only after pain has subsided.

Thus we find in all cases where the râle is heard that there is compression of the healthy lung tissue, bringing the walls of the air cells in contact, followed by inflation and separation of the walls. R. S. H.

3. *Diagnosis of the seat of lesion in Facial Paralysis.* S. G. WEBBER (*The Journal of Nervous and Mental Disease*, July, 1876.)

If the facial is paralyzed after giving off the chorda tympani, taste will, of course, be unaffected; if before that nerve separates, taste will be lost in the corresponding portion of the tongue. If before the stapedius branch is given off, the hearing becomes more acute. If at the point where the petrosal nerve arises, the sense of taste will be lost; there will be unnatural acuteness of hearing; the palate will deviate to one side. When the lesion is at the base of the brain, the sense of taste is preserved, but generally the palate deviates and there may be acuteness of hearing.

The general rule that when motor nerves are injured in their course, after their exit from the nucleus of origin, the muscles supplied by them lose their reaction to the faradic current, is also true of the facial nerve; hence, in all cases of severe lesion of that nerve, at the points above mentioned, the faradic reaction of the muscles of the face should be lost.

When there is complete paralysis of the facial branches, paresis of the palate, no disturbance of taste, simple diminution of electric irritability, and when unusual or decussated reflex action is present, lesion of the facial nucleus may be diagnosticated. One will be more certain that the lesion is seated in the bulb when the other nerves arising therefrom are also implicated (the hypoglossal, accessories, vagus, trigeminus, abducens).

Complete paralysis of the facial branches, paresis of the palate, retained reflex action, no disturbance of taste or hearing, normal electrical excitability, and paralysis of the opposite limbs show that the lesion is in the pons.

Partial paralysis of the facial branches, upper ones remaining free, paresis of the palate, retained reflex and electrical irritability, and paralysis of limbs on same side, leads to a diagnosis of the location of the lesion above the pons, in the crura cerebri and the cerebral hemispheres. Many times a paralysis of the motor oculi of the opposite side aids in fixing the seat of the lesion in the peduncle.

D. R. B.

4. *Lesions in Paralysis Agitans.* B. F. LAUTENBACH. (*The Journal of Nervous and Mental Disease*, July, 1876.)

The original impulse necessary to cause the movement of a set of muscles, originates in the peripheral gray matter of the hemispheres, and proceeds through the motor ganglia, the pedunculi cerebri, and then through the pyramidal fibres to the motor tract of the cord, from whence it proceeds along the necessary nerves to the muscles intended to be moved. The continuation of these movements depends upon the spinal cord. The regulation or co-ordination of these movements depends, not on the cerebellum, as has hitherto been supposed, but on the peripheral gray matter of the hemispheres.

The symptoms of paralysis agitans are due to an irritation of the regulating or co-ordinating fibres of the voluntary motor tract of the brain, which fibres pass from the peripheral gray matter of the cerebrum through the motor ganglia (probably through the nucleus caudatus), and the pedunculi cerebri to the cerebellum.

D. R. B.

5. *A Case of Poisoning by Coal Gas.* R. DEXTER. (*The Journal of Mental and Nervous Diseases*, July, 1876.)

A servant girl retired, after closing her room, and, as she supposed, turned the gas off, but, in reality, leaving the burner open to the fullest extent. When found the next morning, she was in such a state of asphyxia as to render respiration feeble; frothing at the mouth; the surface of the body cold; pulse hardly perceptible at the wrist; sounds of the heart scarcely audible; she was entirely unconscious; pupils dilated to the fullest extent; no spontaneous movements; reflex activity diminished, but reflex action inducible by violent impressions. She was given fifteen drops of spirits of ammonia every ten minutes; after the second dose the pupils began to contract, the pulse at the wrist improved and reflex movements became more active; in an hour and a half she was conscious, and spoke rationally; in an hour more was apparently well.

D. R. B.

6. *Observations on Chronic Epilepsy.* A. McLANE HAMILTON. (*The Journal of Mental and Nervous Diseases*, July, 1876.)

The first indication of treatment was to remove the cause if it could be ascertained. To allay erethism and reduce susceptibility of the medulla, and to administer some general nerve sedative, were the leading secondary indications. In those cases where there was tendency to anæmia the bromides did harm. The doctor claimed that no more than one drachm of either of the bromides should be administered during twenty-four hours. In those cases in which there was present a tendency to hyperæmia, ergot in large doses was recommended. Attacks of *petit mal* could be cut short by hypodermic injections of atropine. He regarded digitalis as a most important adjuvant in the treatment.

Nitrite of amyl was regarded as an agent which could afford temporary relief only, and was chiefly serviceable in those cases in which a succes

sion of fits occurred. The doctor regarded nitro-glycerine as an excellent prophylactic. He had used it in solution containing about one-quarter of a drop to five minims of alcohol, and had found it to produce almost an exact effect with nitrite of amyl, but the effects had been more permanent.

D. R. B.

7. *Diabetic Phymosis*. NIEPCE. (*Lyon Médical*, June 18, 1876.)

The author gives an interesting sketch, historical and pathological, of phymosis, as an epiphenomenon in cases of diabetes mellitus, illustrating his subject by an exceedingly instructive case. The suggestiveness of the whole paper will be seen in giving the author's second conclusion :

"If a phymosis occurs suddenly and spontaneously in a subject where diabetes has not been suspected, the urine should be analysed at once ; while the secretion furnished by the parasitic balanoposthitis should be examined with the microscope. Curiously enough the phymosis is often the only symptom of the disease."

In the case treated by N. circumcision was actually performed before it was concluded to examine the urine ; but when this last was done a flood of light was thrown upon the sudden and acute balanitis which had prostrated his patient, and the cause of which up to that time had been involved in the utmost obscurity.

8. *Congenital Hypertrophy of the Tongue, Relieved by Galvano-Cauterization*. VALERANI. (*Gaz. d. R. Accad. d. Med.*, June.)

The tongue of a child two months old had projected from the oral aperture to the extent of two centimetres since birth. The disfiguring enlargement interfered with the proper grasping of the mother's nipple, and induced a constant flow of saliva over the lips and chin. The tongue could not be crowded back into the mouth. All the extra-oral portion of the organ was surrounded with a platinum wire, and removed by galvano-cauterization without the loss of a drop of blood. The success was so pronounced that when cicatrization had occurred, no one would suspect, from an examination of the infant's mouth, the mutilation to which it had been subjected.

The following is Bizzozero's report of his microscopy of the excised segment :

"The microscope demonstrates that the macroglossia was due to simple hypertrophy of the tongue, in which the muscles, the connective tissue, the epithelium and all other normal constituents of the organ participated. A section of the portion removed could not be distinguished from one excised from a normal tongue, except in very moderate enlargement of the vessels and some of the capillaries distributed to the papillæ. There was no dilatation of the lymphatics, such as has been described in certain cases.

9 *Discordance of Pulse and Temperature in Typhoid Fever*. DESNOS. (*Jour. de Méd. et de Chir.*, July.)

Mistakes are often made respecting the intensity of typhoid fever, when

the temperature is not taken in connection with examination of the pulse. D. treated a vigorous young man who, in the second week of typhoid fever, had but fifty-eight pulsations to the minute, when the temperature was registered at 39° C. His general condition was favorable though the typhoid condition was pronounced; tongue moist and intelligence unimpaired. Judging from the pulse and general phenomena only, the febrile condition would not have appeared severe. However, in this case, while the heart-beat increased to only ninety pulsations, the temperature rose to 40.5° C. Typhoid fever is one of those diseases which most frequently present this remarkable discordance. It is not rare to find the pulse not increased in frequency, while the temperature is very greatly augmented; though it is quite exceptional to note, as in this instance, a pulse below the normal standard. When there was complete defervescence in this patient, the number of pulsation per minute porportionately diminished. After several days of convalescence a relapse occurred in connection with neglect of hygiene, when the same disagreement recurred between the pulse and temperature record.

10. *Salicylic Acid in Microscopy.* EDWARDS. (*Amer. Jr. Microscopy*, June, 1876.)

The writer has kept casts of uriniferous tubules, from a case of nephritis, for two years, and in a perfect condition, in a solution of this acid. He has kept equally well, and for as long a time, leucorrhœal discharges, and remarks, "If salicylic acid will preserve such things, what will it not do." The strength of his solution is not stated, but it is probably a cold saturated solution in pure water.

11. *Neurotic Purpura.* TYRRELL. (*Pacific Med. and Surg. Jour.*, June, 1876.)

A school mistress, eighteen years old, had previously had ague, and had been mentally much worried. While menstruating she got wet to her skin in a shower. The menses ceased shortly, and next day she went to school feeling languid. In the afternoon she was seized, without premonition, with faintness, nausea and vomiting. Soon she had severe pain in the right knee and left ankle, and was unable to move. "Her legs, from the knee to the ankle, were covered with purpuric spots, varying in size from that of a pin's head to that of a quarter of a dollar." She was sure that in the morning no eruption existed here. She screamed from pain in the knee, which was swollen, and in the calves of the legs. Then she had cramps in the calves. She had warm fomentations and opiates to induce quiet. Then quinine and a cathartic were given, and in a few hours, and with the catharsis, the menses returned, and the eruption began to subside. On the third day it was all gone save the yellow stains, and the patient was well.

A stout man of forty-six, after severe exposure to cold and rain in a miasmatic swamp, had suddenly faintness, nausea, vomiting, palpitation and severe cesophageal spasms, with feelings of suffocation. He was cold and frightened. Soon there was reaction and fever, and then profuse dia

phoresis. Quinine was given freely, but all fever did not abate till the fourth day, nor did the feelings of faintness and tightness in the chest disappear for a day or two.

On the abatement of fever there was excruciating pain in the knees and ankles, with puffiness and tenderness. This soon subsided, when a copious purpuric eruption appeared over the front of both legs, from the knees to the ankles. It felt like shot beneath the skin. In a day or two the eruption disappeared slowly, leaving the yellowish stains. Now the shoulders, elbows and wrists were successively attacked with excruciating pain. The purpuric rash came out upon the forearms, and the articular pain disappeared. In a few days this eruption was gone, and there was neuralgia over the left orbit, which was followed by conjunctivitis, "ecchymosis over the sclerous coat, epiphora, photophobia, and finally iritis," successively. No eruptions appeared, but there were swellings over either brow and in the neighborhood frequently, which were very evanescent. "As the pains and swellings left the eye, they returned with unexampled severity in the legs and knees, followed by a fresh eruption of purpuric spots." Muscular spasms became very frequent, affecting chiefly the flexors of the legs and arms. They usually only lasted a few hours, and were followed by a fresh eruption, which soon faded away.

Once he had orchitis, with œdema of the scrotum. The eruption never invaded the body, the neck or the face. There was no hæmorrhage from the gums, bowels, lungs or kidneys.

The disease resisted almost all medication. Large doses of quinine and iron would relieve it for a week or two, when suddenly the pains would return, to be followed by the eruption. A removal from a malarial region cured him at the end of six months. His general appearance had kept good throughout.

Another case was that of a man of forty, who had an erysipelatous inflammation over one eye from an injury. When this disorder was nearly well there occurred a chill, then terrific pains and cramps in the forearms and legs, which were followed shortly by the same kind of an eruption as that already described. Under antiperiodic treatment the man recovered in a few days. He had twice copious night sweats. There were no general symptoms of purpura. The man had lived in a malarial district.

Two other cases are reported, having essentially the same symptoms as those related—pains in the extremities, cramps of the most excruciating sort, and then the purpuric eruption; this disappearing to follow similar sufferings in a few days.

The patients had all resided where malaria affected many people. In none of them did the eruption attack the body, face or neck.

12. *Intermittent Diarrhœa.* ROTHE. (*Memorialien*, 1876, 4.)

The doctor has repeatedly seen cases of diarrhœa attended by violent griping, and remarkable for the periodical regularity of the attacks. These cases resisted the usual treatment, but were quickly cured by a few doses of quinine. The most cases occurred in adults; still a few patients were

children. The disease does not seem to be of a malarial nature, because they occurred in locations where intermittent fever or any other disorder due to malarial influences is unknown.

We will report one case for illustration: A robust, healthy woman, age twenty-five, consulted Dr. R. in September on account of diarrhœa, with violent, labor-like pains. Taking it for an ordinary intestinal catarrh, due to indigestion, he prescribed the necessary diet, and drops containing carbolic acid and iodine. After three days, no improvement; patient was ordered to bed, and acetate of lead, with rheum and opium, was given. After three days more the patient was worse, rather than better. She then informed the doctor of the singular fact that she would feel quite well during the day, until about seven o'clock in the evening. At that time regularly she would get the most violent pains in the stomach, followed by diarrhœic evacuations. These attacks she would get six to eight times in the night; but they would never return during the day. She took ten grains of quinine every three hours during one day, after which she passed a good and quiet night, and had no more attacks of periodic diarrhœa.

13. *Etherization of Young Children.* TRIPIER. (*Le Progrès Méd.*, No. 34.)

Hitherto this procedure has been esteemed harmless. Such is not the case; and Tripier reports three observations in which, although death did not actually occur, still the accidents were serious. The children were from five to eight years of age, and the point of interest in each was the sudden cessation of respiration, always accompanied by persistence of heart action. In one of these cases there was sudden arrest of respiration on three different occasions, and always in the same manner.

In no one of the cases did asphyxia occur, nor cyanosis. Syncope was excluded by the perceptible heart contractions. In all of the three cases there was abundant secretion of a more or less filiform mucus from the bronchi. Tripier inquires if the ether may not have provoked this secretion, and thus occasioned mechanical respiratory obstruction. With this idea in view, he has made some experiments upon cats from three to four weeks old. Now in all these cases he found at the outset of the etherization the respiration suddenly checked with the inspiratory movement—an accident which he never observed when chloroform was substituted for ether. Autopsies were made of all these etherized kittens, but in no case was there bronchial spume in the tubes. Therefore some other hypothesis must be framed to explain the occurrences in question. Possibly the action of the pneumogastric may be implicated. Henceforth, as he renounces ether, he proposes to employ chloroform instead.

Verneuil remarked that it was time to search actively for the causes of death in anesthesia. Two processes are only admitted at present—syncope and asphyxia. But the observations of Tripier, to which might be added many more, scattered here and there, show that a third mode must be admitted—still obscure and comparable to the action of arrest.

14. *Hygiene of the Hair.* BAZIN. (*L'Union Méd. du Canada*, No. 5.)

The article prepared by the distinguished surgeon of the Saint Louis hospital for the *Dictionnaire des Sciences Médicales*, deserves the attention of all our readers:

The author commences by fully recognizing the action of those general influences which prove hurtful to the hair by inducing debility; that is to say, the general health must be established.

Under ordinary circumstances, the care required for the head should be directed merely to favoring the removal of the dust and deposit upon the hairy scalp.

In very young infants the brush and comb should give place to simple acetic or alkaline lotions, or the inunction of some fatty substance, such as cold cream or the oil of sweet almonds.

The practice of washing the scalp with warm or cold water is essentially bad, because it renders the hair dry, brittle and lusterless.

In women, the more or less complicated methods of dressing the head which prevail, necessitate the squeezing, dragging and twisting of the hairs in every direction — processes extremely unfavorable for their nutrition. Ladies should be taught that hairs, though insensible to pain, are not inert and lifeless, and that the most hygienic of all coiffures is that which leaves to the hair the greatest liberty and aeration and the most frequent repose.

The habit of wearing the hair long in men is bad, because they rarely spend the requisite time in cleansing it. The practice of clipping it close to the head is detestable, and absolutely contrary to the purpose for which it was designed.

Cutting the hair short in order to favor its growth, is the result of a prejudice which nothing can justify; while periodic hair cutting within reasonable limits is not injurious.

Contrary to the generally received opinion, Bazin concludes that the finest heads of hair are those which the scissors have never touched.

The habit of "refreshing" the hair, that is, of cutting away from time to time a small portion, may be indicated when the growth is thin, wasted or meagre.

The use of the razor should *always* be avoided, even when it is required to cut the hair very short, as in convalescence from grave disorders. Epilation, when employed for the purpose of removing white hairs, only hastens the supervention of canities.

The employment of cosmetics, instead of being allowed as of common usage, should be strictly confined to certain cases. Those who, when in perfect health, have naturally greasy hair, should be advised to use very weak alkaline lotions. Those, on the contrary, who have dry and harsh hair, may use oily applications.

Without expressing much confidence in the measures designed to prevent the loss of hair, the author concludes that sometimes the effort should be made.

Hair dyes are of two kinds. The first (galls, infusion of nux vomica, pomegranate,) is almost inoffensive, but gives uncertain and unstable results. The second, whose basis is generally lime, nitrate of silver, lead, or sulphate of iron, is successful in the result, but dangerous for employment.

III. SURGERY.

1. *On Ainhum.* CAMUSET. (*L'Union Méd.*, August 26.)

A negro, forty years old, had a small furrow form on the inferior and internal surface of the little toe of the right foot, which subsequently became deeper, and completely surrounded the root of the toe, while the extremity enlarged. Finally strangulation occurred, and the toe becoming very sensitive and movable, was attached to the foot by a slender cord merely. This was divided by a stroke of the scissors, when a cure was effected.

When examined, upon admission, the toe was retracted, enlarged to three times its ordinary size, and rotated outward. A deep circular furrow, involving the entire thickness of the toe, completely surrounded the member at the digito-plantar root, leaving only the central pedicle, discovered by separating the two surfaces which were in contact. These surfaces were completely covered by integument, which was slightly retracted, smooth and normal, without perceptible cicatrix. Upon each of these surfaces was a slight elevation, giving issue to an extremely fetid and sero-purulent secretion. The pedicle was found to be constituted, not by the phalanx, but by a fibrous tissue, having on its surface a trace of the small ulcer mentioned above. When the section was made, the parts divided were seen to be uniformly whitish-yellow in color, especially at the center, and possessing an elasticity, due apparently to the connective and fatty tissue.

"Ainhum" was first described in 1867, by Silva Lima. It occurs exclusively among negro field laborers, and always upon the little toe. The case given above is in all respects typical.

The disease is chronic—lasts from one to ten years—etiology obscure. In Brazil men only are affected, but in Africa women are not exempt. The wearing of shoes seems not to offer immunity. The general health is unaffected by the disease. Moncerro, who treated the patient whose case is detailed, summarizes the points of difference between "ainhum" and the Norwegian "radezyge," "spedalskhed," elephantiasis, lepra, scleroderma, "bouba" (a disease analogous to the "yaws"), and symmetrical gangrene of the extremities.

He concludes that "ainhum" is a special disease, belonging to the degenerations described by Cullerier as "atrophies by rarefaction." In this the compact bony tissue becomes spongy and areolar, and is finally replaced by mere connective tissue and fat.

2. *Excision of Nerves, and their Reunion by Sutures.* BRAUN. (*Centralbl. f. Chir.*, 1876, 34.)

A young farmer received a punctured wound in his left arm. The bleed ing, which had been quite profuse, ceased spontaneously; the small wound healed, but the fingers of the left hand remained paralyzed. Ten months after the injury, when the patient was admitted to the hospital at Heidel-

berg, several painful tumors of the size of cherry stones were discovered under the cutaneous cicatrix, which was located in the upper third of the arm, at the inner border of the biceps muscles. The left hand was cold, its integument thin, glistening, brown-red, and the finger nails were thickened, roughened, and much incurved, like claws. The interosseous muscles and the muscles of the thumb and little finger were atrophied. The result of the electric examination and the character of the palsy proved conclusively that the ulnar and median nerves had been completely cut through.

Prof. Simon resolved on the attempt at reuniting the severed nerves. The operation was performed under antiseptic measures, and with the use of Esmarch's bandage. The central ends of the nerves, which were first exposed, formed club-like enlarged lumps. The distal ends of the nerves had retracted to such an extent that with great difficulty only they could be found. These were pared off; the swollen central ends were excised, and both ends were made to meet by means of a suture of finest silk, which passed through the entire thickness of the nerve. But in order to insure an accurate apposition of the cut surfaces, additional stitches of cat-gut were applied. The median nerve received two, the ulnar nerve three sutures. The tension was relieved by placing the arm upon a rectangular splint. For two days there was violent pain in the wound, which, after profuse suppuration, healed at the end of four weeks. The stitches were not removed till six weeks after the operation. The palsy then still existed, but the electric current applied above the cicatrix caused feeble contractions of the muscles of the hand. And eighteen months after this nerve-suture the patient showed this remarkable result:

The forearm is stronger, its skin thicker, warmer, and no more glistening; the finger nails are deformed no more. The function of the flexor and pronator muscles is completely restored, while the muscular actions of the thumb and little finger are still defective. The sensation has returned, though it is yet somewhat inferior to that of the right hand. The patient is perfectly able again to do his work.

Prof. von Langenbeck, at the last congress of German surgeons, reported a similar resection and reunion of nervous fibres which he performed on the sciatic nerve, with a very good result, two years after this nerve had been cut by a hatchet.

IV. OPHTHALMOGY AND OTOLGY.

1 *Treatment of Chronic Otorrhœa.* PROF. AD. POLITZER. (*Wiener Med Wochenscher*, 21, 1876.)

Strong solutions of nitrate of silver (one drachm to one ounce of distilled water) have perhaps been more efficient in curing a chronic suppuration in the middle ears than any other remedy; and especially in those cases where the mucous membrane has not yet been greatly disorganized or covered with granulations, the caustic treatment yields very nice results. But still, even in such cases, it sometimes fails to remove the suppuration completely, though it may diminish it to a certain degree. In such cases where the (eight to ten times) repeated cauterization of the mucous membrane of the middle ear did not arrest the suppuration, P. saw a very rapid

decrease and an entire cessation of the otorrhœa follow the insufflation of powdered alum into the external auditory meatus. The alum may be blown into the ear through any short tube, with a piece of rubber tubing attached to it, or by means of an "insufflator," used in laryngeal surgery. After a successful insufflation the mucous membrane and the drum-head must look snow-white. Unless the purulent discharge is profuse, the alum remains in the ear at least two days. If on the third day the powder is still dry, it ought to be let alone, because any interference by syringing or otherwise will start the secretion anew. But if at that time the insufflated powder is moist, it shall be removed by injecting warm water; and if the purulent secretion has not ceased within the next twenty-four hours, another application of alum shall be made.

2. *The Operative Treatment of Otorrhœa.* DR. OSCAR WOLF. (*Arch. Ophthalm. and Otology*, Vol. V., 1.)

In many cases of Otorrhœa the treatment usually employed (namely, careful cleansing of the running ear with tepid water, inflation of the tympanum, and the application of various astringents,) proves inefficient. If in such cases the ear is carefully cleansed and thoroughly examined, we shall generally discover more or less extensive growths as the source and cause of the purulent process: there may be simple soft granulations or densely organized polypi. These growths arise either from the mucous membrane, the bone being unaffected, or they cover a portion of carious bone.

The means hitherto employed for the removal or destruction of these formations have been the cauterization with silver, the wire snare and the galvano-cautery. Now Dr. Wolf recommends the removal of those fungous growths by means of sharp spoons, with which also the surface of the carious bone may be scraped. These small spoons have a cutting edge and a malleable shank of untempered steel mounted on a small wooden handle. The instrument can be bent at any angle, to suit the location of the point to be operated upon. "After the ear has been well syringed and is illuminated by the mirror fastened by the forehead-band, we should try to obtain a view of the diseased spot by carefully removing the epidemic scales covering the parts, employing for this purpose a fine probe, and we seek at the same time for the pedicle and attachment of the polypus or the granulations. The instrument is then bent according to indications, and the cutting edge of the spoon is pressed against the root of the granulations with a slight digging movement. If in the operation we do not detect any distinct grating, as if the instrument came in contact with dead bone, we are satisfied with the removal of the granulations or polypus. If on the other hand we feel a rough surface of the bone, and recognize caries from the characteristic little particles of bone, we proceed to apply the spoon once more, and continue to scrape the carious surface until no more little particles of bone appear in the spoon." The operation is so quickly done, and attended by so little pain, that it appears scarcely necessary to anesthetize an intelligent patient. No material reaction ever followed the operation. After the operation the meatus should be closed with clean lint, which should be changed frequently, and the patient should be kept quietly at home.

3. *A Sign of Real Death in the Human Eye.* ALMES. (*Gazetta Medic. Ital prov. Venet.*)

This sign consists in the retraction or non-retraction of the iris after puncture of the cornea and evacuation of the aqueous humor. When the pupil contracts, life still exists; when it remains fixed, that is an unfailing sign of death. The puncture of the cornea by the aid of a cataract knife or ordinary lancet is a harmless operation.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, Nov. 6 and 20.—Chicago Medical Society. Regular meetings.

Mondays, Nov. 13 and 27.—Chicago Soc. of Phys. and Surgeons. Regular meetings.
CLINICS. Every Monday.

At Eye and Ear Infirmary, 2 P. M.—Prof. Holmes.

At Central Dispensary (Wood and Harrison sts.), 2 P. M. *Gynecological*—Dr. Adolphus.

At Mercy Hospital—2 P. M., *Surgical*. Prof. Andrews.

At Rush College—2½ P. M., *Medical*. Dr. Bridge.

At Chicago College, 2 P. M. *Gynecological*—Prof. Merriman.

LECTURES. Every Monday.

At Rush Medical College (Harrison and Wood sts.)—9½ to 12½ o'clock, Profs. Freer, Lyman and Powell; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Hyde, Hatfield and Bond; 3 to 6, Profs. Nelson and Davis, Quine and Andrews, and Roler. At Woman's College—8½ to 11½, Profs. Hotz, Marguerat and Earle; 3 to 5, Profs. Paoli and Stevenson.

TUESDAYS. SOCIETIES.

Tuesday, Nov. 14.—Academy of Science. [Regular meeting at 8 P. M. (263 Wabash av.)]

CLINICS. Every Tuesday.

At County Hospital—2 P. M., *Medical*. Prof. Ross. 3 P. M., *Surgical*. Prof. Powell.

At Mercy Hospital—2 P. M., *Medical*. Prof. Hollister.

At Chicago College—2 P. M., *Gynecological*. Prof. Roler.

At Central Dispensary—2, *Surgical*, Dr. Graham. 3, *Diseases of Chest*, Dr. Ingals.

LECTURES. Every Tuesday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Quine, Merriman and Bond; 3 to 6, Profs. Johnson and Nelson, Andrews and Hatfield, and Byford. At Woman's College—9 to 12, Profs. Bartlett, Bogue and Fitch; 3 and 5, Profs. Thompson and Macdonald.

WEDNESDAYS. CLINICS. Every Wednesday.

At County Hospital—2 P. M., *Gynecological*, Prof. Fitch; 2 P. M., *Ophthalmological*, Dr. Montgomery.

At Chicago College—2 P. M., *Gynecological*. Prof. Nelson.

At Mercy Hospital—2 P. M., *Ophthalmological*. Prof. Jones.

At Central Dispensary—2 P. M., *Gynecological*. Prof. Etheridge; 3 P. M., *Dermatological*. Dr. Maynard.

LECTURES. Every Wednesday.

At Rush College—9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Etheridge and Haines. At Chicago College—8½ to 12½, Profs. Hyde, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Curtis, Quine and Jones, and Roler. At Woman's College—9 to 12, Profs. Marguerat, Curtis and Blake; 3 to 6, Paoli, Graham and Stevenson.

THURSDAYS. CLINICS. Every Thursday.

At Mercy Hospital—2 P. M., *Medical*. Prof. Davis.

At Rush College—2 P. M., *Medical*. Prof. Ross; 3 P. M., *Diseases of the Nervous System*. Prof. Lyman.

At Chicago College—2 P. M., *Gynecological*. Prof. Merriman.

At Central Dispensary—2 P. M., *Surgical*, Dr. Graham; 3, *Diseases of Chest*, Dr. Ingals.

LECTURES. Every Thursday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Etheridge. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Merriman and Bond; 3 to 6, Profs. Johnson and Nelson, Andrews and Hatfield, and Byford. At Woman's College—9 to 12, Profs. Dyas, Bogue and Fitch; 5, Prof. Macdonald.

FRIDAYS. SOCIETIES.

Friday, Nov. 10.—State Microscopical Society of Illinois. Regular meeting, 8 P. M.

CLINICS. Every Friday.

At County Hospital—2 P. M., *Medical*. Prof. Ross; 3 P. M., *Surgical*. Prof. Powell.

At Mercy Hospital—2 P. M., *Medical*. Prof. Davis.

At Chicago College—2 P. M., *Gynecological*. Prof. Roler.

At Central Dispensary—2 P. M., *Gynecological*. Dr. Adolphus.

LECTURES. Every Friday.

At Rush College—9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Gunn and Holmes. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Curtis, Jones and Quine, and Roler. At Woman's College—9 to 12, Profs. Bartlett, Marguerat and Curtis; 5, Prof. Stevenson.

SATURDAYS. CLINICS. Every Saturday.

At Chicago College—2 P. M., *Surgical*. Prof. Andrews or Isham; *Gynecological*. Prof. Nelson; 3 P. M., *Medical*. Prof. Johnson.

At Rush College—2 P. M., *Surgical*. Prof. Gunn.

LECTURES. Every Saturday.

At Rush College—9½ to 12½, Profs. Miller, Lyman and Etheridge. At Chicago College—8½ to 11½, Profs. Hollister, Quine and Hyde; 3 to 6, Profs. Nelson and Johnson, Andrews and Quine and Byford. At Woman's College—9 to 11, Profs. Earle and Fitch; 3 and 5, Profs. Paoli and Macdonald.

At all the above named Clinics visiting regular practitioners are, we believe, admitted. At the South Side Dispensary (Chicago College) there are six daily special Clinics, for sections of the classes of the Chicago College.

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Original Communications.

THE THERAPEUTICS OF EPILEPSY.

By ALLAN McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO EPILEPTIC AND PARALYTIC HOSPITAL, BLACKWELL'S ISLAND,
NEW YORK CITY, ETC.

The object of this paper is the discussion of the present method of treating that most discouraging and imperfectly understood form of disease, Epilepsy. I wish more particularly to consider the value of the bromides, and at the same time to detail recent investigations undertaken to support a statement I made at the last meeting of the American Neurological Association, where I advocated the *medium dose*, and endeavored then to show that of late there is an unwise tendency to administer these drugs in dangerous quantities.

I may be pardoned, perhaps, in calling attention to certain practical points which may appear unimportant to some, but an experience gained from the management of a great many cases teaches me they are to be carefully considered in selecting a plan of treatment. These simple indications, I am convinced, are too often overlooked, even by painstaking and careful medical men. I allude to the necessity for discovering the

exciting cause. I am every day made to feel that the idiopathic cases do not form so large a proportion as they were once thought to. With this belief I am satisfied that empiricism and routine management are bad methods. Any one who examines all his cases thoroughly will recognize the delicate shades in epilepsy, variations which are exhibited in other diseases presenting more pronounced and better defined symptoms; consequently there are evidences of pathological action, which are not always grouped alike, and consequently all cases are not to be treated in the same manner. I ascribe the moderate success I have had in the management of this disease to the recognition of these differences.

Not only may obstinate epilepsy result from masturbation, but it may be due to many of the diseases of women, and is produced by other eccentric irritations of various kinds, or by centric irritation, such as may be associated with toxæmia.

Sir Charles Locock (*Med. Times and Gazette*, May 23, 1853,) called attention to many cases that he had treated where uterine irritation was the exciting cause; and I think others have had the same experience. In one of Locock's cases the patient was affected particularly at the menstrual periods.

Some of these peripheral causes are curious in the extreme. Through the kindness of Dr. Gibney, of New York, I was enabled to see a child who had accidentally injured her ear with her parasol, the brass tip of which remained for some time imbedded in the external auditory meatus. As a result, convulsions of an epileptic character were caused, and it was not until some time afterward that the foreign body was discovered and removed. In another case I treated, the Epilepsy was unmistakably due to a bad habit the woman had of wearing a number of heavy garments about her hips, which produced some uterine change. When this condition of affairs was noticed, and the skirts removed, she immediately recovered. At the root of many epilepsies, as well as other neuroses, are reflex causes—the starting point being the organs of digestion, or those contained in the pelvis. Of course there are varieties of epilepsy of an idiopathic nature, or others caused by traumatism or organic disease; and these will defy

the best directed efforts of the physicians, and we can do nothing.

We should not lose sight of syphilitic epilepsy where pain always precedes the attack. It is generally curable.

In prescribing for our patient there are five indications to observe:

1. Removal of exciting cause, if possible.
2. The diminution of exaggerated reflex susceptibility of the medulla.
3. Equalization of cranial circulation.
4. Abortion of paroxysms.
5. Improvement of general condition.

For the accomplishment of these, it is imperative that a judicious and discreet selection of drugs should be made; and as those which are the most effective I may mention:

The Bromides: Sodium, Potassium, Calcium, Lithium, Iron.
Belladonna.

Digitalis.

Strychnine.

Ergot.

Arsenic.

Amyl Nitrite.

Tri-Nitro-Glycerin.

Cod Liver Oil.

I have not classified these remedies, as it is unnecessary to do so; but will now say a word in regard to their usefulness:

No one drug can be declared a specific — as I am sorry to see has been done — and we must not be too eager to accept the sanguine results of certain over-enthusiastic authorities, and be governed thereby. I allude more especially to the almost universal use of the bromides, to the exclusion of everything else, and also to their employment in quantities, which often ruin the patients, and at any rate produce a condition of diminished vitality — which is inconsistent with any hope of success. ¹ Radcliffe's idea in this respect is a good one: "There is reason to believe that the therapeutics of convulsion

¹ Radcliffe. Pain, Epilepsy and Paralysis, p. 215.

must be based upon the notion that vital power has to be reinforced, and not upon the contrary opinion." What the proper dose is, has not been clearly settled by any one. There are neurologists who believe in toxic doses, and there are others who prescribe quantities which are almost small enough to be inert. In England it has been the custom to prefer the very small doses. I have seen the prescription of a very distinguished general practitioner, who thinks five grains of the bromide of potassium a sufficient dose. ¹ Ringer recommends from 30 — 60 grains in the day; ² Radcliffe, 45 grains; ³ Russell Reynolds, 30 — 90 grains; ⁴ Bartholow, 30 — 240; and ⁵ Hammond, 90 — 240 grains during the day.

⁶ Handfield Jones remarks that there is a great difference in the tolerance of individuals in regard to the bromides — some persons not being able to stand five grains, while others will not be affected by doses of less than forty grains in amount.

My own experience has taught me that the best effect can be gained by the repeated administration of sixty grains in the twenty-four hours. The larger doses produce rapid bromism, while a medium dose seems to be better appropriated, but will do just as much mischief in the way of bromism as the larger ones, if given for a length of time. My records show me that the average time for development of symptoms of this kind is about three months, while anaesthesia of the fauces is produced in a few weeks, or even a much shorter time; and I agree with others that it is necessary to produce this condition before we can say that the medicine has produced its physiological effect. Brown-Séguard considers the appearance of acne to be an indication that the medicine has begun to do its work, in which opinion he is joined by ⁷ Dr. Putnam-Jacobi. ⁸ Voisin considers the "point of saturation to be indicated by the

¹ Handbook of Therapeutics, p. 92.

² Pain, Epilepsy and Paralysis, p. 202.

³ System of Medicine, p. 323. Vol. II.

⁴ Materia Medica and Therapeutics, p. 371.

⁵ Clinical Lectures on Nervous Diseases.

⁶ Functional Nervous Diseases, p. 325.

⁷ Oral communication at Am. Neurological Association.

⁸ Voisin, *Archiv. de Médecine*, Jan., 1873.

anæsthesia of the pharynx and nares, so that in one case nausea is not produced by titillation with a spoon, and in the other sneezing and weeping does not follow the introduction of a straw into the nasal cavity." I should consider the latter a rather severe test. According to Danton¹ the bromides act as vascular medicaments, diminishing excito-motor power. They act on the unstriped muscular fiber, producing local anæmia and moderating excitation resulting from temporary or [permanent congestion. ² "They are agents that pass very rapidly into the blood (Ringer), and consequently their effects are very immediate, and they accumulate till the point of saturation is reached before they are eliminated in anything like considerable amounts." We are all aware that repeated and large doses of these drugs are followed by a most disagreeable and pernicious state of affairs. ³ Voisin has referred to two forms of poisoning, which he has divided into the slow and rapid. In the first the complexion becomes muddy, the eyes sunken, sight and hearing poor, and memory obscure. The patient cannot write, and cannot express himself, as he forgets words—there is tremulousness. In the other variety of the *slow* form there is dementia, or delirium with maniacal outbursts. Ataxia is also a feature of this variety. In the *rapid* form—that with which we are most familiar—somnolence, headache, uncertain walk, difficulty of speech, loss of expression, "fishiness" of the eyes, drooling of saliva, etc., etc., are the ordinary symptoms.

Various grades of toxæmia, or even a state which Voisin calls the "cachexie bromique," and which terminates in a typhoid condition, may result from a reckless use of this drug.

As regards the variety of bromide, I think the sodic is the most reliable and stable; the potassic salt varying very much in strength. The others either have a tendency to deliquesce, or are expensive. It will be advisable to keep the solution in a tight-stoppered bottle, and have fresh quantities put up constantly, as it is very apt to undergo changes—in which

¹ Danton. Thèse de Paris, 1874.

² Ringer. Handbook of Therapeutics, p. 91.

³ Voison. Archiv. de Médecine, Jan., 1873.

the bromine is evolved. And now a word regarding the time of administration. It has been shown repeatedly that these salts are much better absorbed when the stomach is empty. I have found also that a heavy dose at night is apt to do more good than if the amount prescribed is equally divided up through the day. In a great many patients I have found the attacks to occur at the waking hour, and I suppose this is due to the sudden change in the cerebral circulation. A mild diffusive stimulant has overcome this, and in many cases warded off the attack. I direct my patients who have their convulsion at this time to keep a glass of sherry or a small quantity of Spts. Ammoniae Aromaticus near at hand, to be taken before arising. Cold douches to the head are valuable. If the attacks be irregular, it will be found necessary to divide up the dose.

The treatment of the disease in women should be directed as well to the pelvic organs. It will be found that the bromides will markedly affect the flow, and relieve the pain or uneasiness which is connected with the menstrual period. Locally I have found that cold applied for a few minutes daily over the ovaries, will modify the attacks should they be connected with irritation of any of the pelvic viscera. The progress of the disease should be soon modified by the doses I have recommended, and it will be seen by the table condensed from that prepared by Dr. Hollis and published in the *British Medical Journal*,¹ that even smaller doses modified or cured the majority of the cases he cites. At the Epileptic and Paralytic Hospital, where most of the cases are the very worst that can be collected as regards chronicity, I find that sixty grains a day will cut short the attacks of a great many patients, and I have cured a number of private patients by this method. Dr. Hollis' cases were not selected, and are evidently hospital patients, like my own.

¹ Br. Med. Journal, July 1, 1876, p. 4.

ANALYSIS OF ELEVEN CASES OF EPILEPSY.

S. B.—Sodic Bromide. P. B.—Potassic Bromide.

NO. OF CASE.	SEX & AGE.	DURATION OF DISEASE.	AVERAGE NO. OF ATTACKS BEFORE TREATMENT	MAXIMUM DOSE.	MINIMUM DOSE.	DIMINUTION.	REMARKS.
1	Male, 15	Since birth	1-2 weekly.	S.B. gr. xx, t.i.d.	S.B. gr. xv, t.i.d.	2 in 8 weeks	Weak intellect.
2	Male, 22	Two years.	1-2 weekly.	S.B. gr. xv. ....	.....	1 in 20 wks.	Disease followed sunstroke; treatment lasted 3 months.
3	Male, 25	One year ..	1 or more in week, sometimes many in a day	S. B. xxv., P.B. gr. xxx	S.B. gr. ij..	None in 8 weeks	Hard drinker, feeble intellect; Potassium salt inert.
4	Fem., 2	18 months.	1-2 weekly, sometimes 3 in a day.	Very small doses.....	.....	None in 8 weeks	Fits followed dentition; rickety constitution.
5	Fem., 18	One year ..	1 a week...	S.B. gr. xxx	Gr. xx	None in 4 weeks	Tuberculous disease.
6	Male, 18	Five years.	4 in week..	S.B. gr. xv.	.....	None from 5 weeks...	No affection of intellect.
7	Fem., 11	Five years.	2-3 in week	S.B. gr. xx.	S.B. gr. xv.	1 in 5 weeks	Followed a blow; subject to headache.
8	Fem., 17	Several mos	Sometimes 4-5 daily..	S.B. gr. xv.	.....	None after treatment.	Has bitten tongue.
9	Male, 20	19 years....	2-3 weekly.	S.B. gr. xl.	S.B. gr. xv.	No fits for 2 weeks...	No aura.
10	Male, 13	Two years.	3 weekly...	S.B. gr. xxv	S.B. gr. xv.	1 in 3 weeks	Well developed disease, facies Epileptica well marked.
11	Male, 25	Eleven yrs.	1 in 2 weeks	S.B. gr. xx.	.....	1 in 5 weeks	No fits since beginning of treatment.

By this table it will be seen that from fifteen to twenty grains of the sodic salt were required to immediately decrease the number of attacks.

Below will be found two tables. In one are tabulated the interesting features of twelve cases of epilepsy. They are old hospital patients, and had applied for admission after outside treatment had been exhausted. Even here the bromides, in the doses I have given, seem to do much for the sufferer. Syphilis, traumatism and actual insanity make the prognosis as bad as it well can be, and treatment is simply palliative. Large doses have aggravated many of these cases.

The other observations are selected from my note book, and are illustrative of the efficacy of the dose I have advocated.

Bromism occurred in spite of all I could do in most of them, though it was a mild form and under control. They were all patients of the better class, and of course had all the advantages of comfortable homes, attentive friends, substantial food and good air, although many of them were inclined to over-eating, as in fact all epileptics are. In this respect there is an advantage in favor of the poorer patients, who cannot obtain rich food.

ANALYSIS OF TWELVE CASES OF CHRONIC EPILEPSY.

S. BR.—SODIC BROMIDE. P. BR.—POTASSIC BROMIDE. II. BR.—HYDROBROMIC ACID.

NO.	AGE.	DURATION OF DISEASE.	AVERAGE NO. OF ATTACKS BEFORE TREATMENT.	AVERAGE NO. OF ATTACKS DURING TREATMENT.	MAXIMUM DOSE OF DRUG.	MINIMUM DOSE OF DRUG.	FORMER TREATMENT.	DURATION OF PRESENT TREATMENT.	REMARKS.
128	16 years	1 month	1	1 in 2 months	P. Br. gr. xx, t.i.d.	P. Br. xv, t.i.d.	S. Br.	6 months.	Has taken II. Br. for 1 month—fits increased.
225	19 years	6 months	18	1	II. Br. i dr, t.i.d.			1 month.	Melancholic.
229	20 years	18 months	3	1	Ergot (for 1 month)	P. Br. xv, t.i.d.	S. Br.	6 months.	When under S. Br. attacks were 3 in month.
427	14 years	4 months	1	1	P. Br. gr. xx, t.i.d.	P. Br. xv, t.i.d.	P. Br.	1 month.	Masturbates.
519	6 years	7 months	1	1	S. Br. gr. xx, t.i.d.	P. Br. x, t.i.d.	Chloral, etc.	4 months.	Hysterical.
620	19 years	2 months	1	1 in 6 weeks	P. Br. gr. lx, daily.	S. Br. x, t.i.d.		9 months.	Menstrual complication.
722	10 years	21 months	1	1	P. Br. gr. lx, daily.			9 months.	
822	6 years	7 months	2	1 weekly	P. Br. gr. xv, t.i.d.			6 months.	
918	4 years	8 months	1	1	F. Ex. 1/2 dr, t.i.d.			4 months.	Bad habits.
1023	23 years	3 months	1	1 in 2 months	P. Br. gr. xv, t.i.d.			4 months.	
1129	27 years	5 months	1	1 in 3 months	S. Br. gr. xx, t.i.d.			6 months.	Bad habits.
1231	12 years	6 months	1	1 weekly	P. Br. gr. xx, t.i.d.	S. Br. xv, t.i.d.		3 months.	

ANALYSIS OF FOUR SUCCESSFUL CURES OF EPILEPSY WITH MODERATE DOSES OF THE SODIC BROMIDE.

G. M.—GRAND MAL. P. M.—PETIT MAL.

NO.	AGE.	SEX.	DURATION.	NO. ATTACKS BEFORE TREATMENT.	NO. OF ATTACKS DURING TREATMENT.	AFTER FIRST YEAR.	AVERAGE DOSE, ETC.	DURATION OF ACTIVE TREATMENT.	CONTINU'D SUBSEQUENT TREATMENT.	VARIETY OF DIS-EASE.	PERIOD UNDER OBSERVATION.	REMARKS.
1	15	M.	10 years	G. m., about 4 weekly; p.m. 10, 40 daily---	For first 3 mos. 5; for next 6 mos., none	2 in 2 years.	30 grains Sodic Brom., t.i.d.; auxiliary treatment; Ergot, Arsenic, Iron, etc.	About 9 mo.	X-xx grs. Sodic Bromide at night; strict hygienic care	gm. at night	4 years.	Bright boy; Epileptic habit almost confirmed; intelligent parents, who aided in general management & discipline; apparently idiopathic origin.
2	20	F.	12 years	1 to 2 weekly; g.m.	After xx. grs., S. Br. 3 in a week, 3 in next 2 weeks, 1 in next 5 weeks, 2 in next month, 1 in next 4 mos. 1 in next 9 months	3 in 2 years.	Cod Liver Oil, Sodic Bromide, xxv. grs., t.i.d.; atropia hypodermically	About 19 mo	Gr. x, t.i.d.	Mixed	About 4 yrs	Over study; hysterical; no uterine trouble.
3	36	M.	9 years	1 or 2 every 2 months; g.m.	S. Br. gr. xx. at night; 3 in 7 months	1 in 1½ yrs.	S. Br. gr. xx., at night	About 2 yrs	Gr. x-xx. t.i.d. Sea voyage; cod liver oil.	Nocturnal	About 3 yrs	Business man; overwork; supposed blow on head; attacks excited by over-eating.
4	47	F.	5 years	About 2 m'thly	S. Br. gr. xx., t.i.d.; Ergot increased them to about 5 in 'thly; worse at menstrual periods; stopped Ergot; fitted about once a month	1 in 2½ year; none to date. Sep. 20, 1876.	S. Br. gr. xx., t.i.d.; uterine treatment; Syr. Lacto-phos., Arsenic	About 4 mo.	Lacto-phos. of Lime; S. Br. gr. v., t.i.d. for 6 months.	Mixed; generally nutritional.	About 4 yrs	Case undoubtedly dependent upon ante-version of uterus; immediate cessation of disease when the position of this organ was rectified.

And now regarding the large doses. If the idea is to thoroughly ruin the patient's health, enfeeble his mind, or perhaps drive him to an asylum, the toxic administration may be indulged in. It is very true that sometimes a rapid restoration may be brought about by "Iron and Quinine;" but there are many cases where the recovery is not quite so complete as one could wish for. Memory is enfeebled, and there is a cachexia which remains for an indefinite time. A darker side of the picture is not always displayed when brilliant results are detailed. This is the list of demented and those that have died. My friend, Dr. Janeway, was present at the autopsies of two patients who died brominized — for certainly the examinations disclosed no other cause for death. I myself have seen several demented cases, and I have no doubt others could tell the same story.

Belladonna and its alkaloids are of great value when the seizures occur in the daytime, or are of the variety known as *petit mal*. I have injected the Sulphate of Atropia in $\frac{1}{64}$ gr. doses beneath the skin at the back of the neck with good effect, and have given it in the manner directed by Trousseau. In either way it should be administered until dryness of the throat is obtained, and should be given a patient trial. The property possessed by belladonna of blunting reflex susceptibility assures it a great advantage over other methods of treatment, when there are centers of irritation such as in gastric epilepsy.

In Ergot we have a remedy which controls the cranial circulation much more readily than any drug I am acquainted with. As the object is to diminish the congestion at the floor of the fourth ventricle, its combination with the bromides greatly increases the action of the latter. Ergotin may be given alone in the form of Bonjean's capsules.

To ¹ Tyrrell belongs the credit of suggesting Strychnine. He believes that this remedy controls excitation of the medulla oblongata. In one individual who averaged fifty-one attacks in a month, the number was reduced by the Strychnine to

¹ Med. Times and Gazette, May and Aug., 1867.

eleven in two years. ¹ Handfield Jones does not favor the remedy, nor do others, although it has advocates in this country. In small doses it certainly does good; but I have found that in larger doses than $\frac{1}{32}$ gr., *ter in die*, it rather aggravates the disease.

Arsenic is excellent, both for its anti-periodic and alterative action, and as an agent to relieve the acne. ² Clemens, of Frankfort, has lately advocated the Bromide of Arsenic, but in such small doses as to seem useless. He claims for it remarkable virtue when the disease depends upon idiocy, and appears in patients with deformity of the skull. He reports two cures.

Where there is an irregularity of heart action, sluggish circulation, blueness or duskiness of the skin, I think digitalis is indicated; in fact, I generally use it in every chronic case. It is a drug well tolerated by epileptics, who can take it in surprisingly large doses.

An agent has been lately given to the profession which seemed all that was needed at first, but which I am convinced is very much over-estimated, except as an abortant. I speak of the Amyl Nitrite. Drs. Weir Mitchell, Zeigler and Alexander McBride, as well as several foreign writers, have praised it, and several cures have been reported. In epilepsy there seems to be a "habit," (if I may use the expression,) or tendency to periodicity. Amyl is well adapted to stop this, as is any other remedy of the same class. Crichton Browne alludes to the effects of this drug upon the *status epilepticus*. His patient had had a great succession of fits, and was at the point of death—the pupils were contracted to an intense degree, pulse 116, temperature 102°, with stertorous breathing. Voluntary movements and yawning were caused by inhalation of the Amyl Nitrite, and the patient subsequently raised his head and looked about him. Dr. Browne relates ten other cases which were seen with Dr. Mierson.

¹ Handfield Jones' Functional Nervous Affections, p. 326.

² Allg. Medicinische Central Zeitung, May 24, 1876.

Dr. C. Steketec¹ draws the following conclusion in regard to the action of this drug in Epilepsy:

“It exerts an important influence where the epilepsy is due to, or connected with cerebral anæmia, for the reason that it ‘anticipates the attack when there are prodromata—cuts off the attack when it appears, relieves symptoms due to interrupted innervation after the attack—and the attacks become less frequent’” (? by the author). He also considers it injurious where the attacks are due to cerebral hyperæmia, for the reason that they last longer and become more frequent, and when either maniacal or convulsive, increase in intensity.

My own experience with Amyl Nitrite has clearly settled in my mind the fact that it has great virtues in cutting short or averting attacks, but that it has no permanent influence. Whether we can or cannot make the delicate distinctions of Dr. Steketec, future clinical experience I think must decide. Those who have used it say that it does good in a very limited number of cases; and it is a difficult task to decide which are to be benefitted. I have tried it in every grade of Epilepsy, and find in some of the worst cases, where the fits occur all through the day, with very slight intervals, and even where there is time enough to be prepared, that it is often of no avail. It may be given enclosed in the little glass capsules invented by Dr. McBride, of New York; for hospital use, and for patients who are not intelligent, in alcoholic solution.

I may be pardoned for bringing another remedy to the notice of the profession, and one that has never been used for this purpose. I allude to Tri-Nitro-Glycerine. Its properties are almost enough to intimidate the patient, but it is as powerful a medicinal agent as it is an explosive. The tenth part of a drop touched to the tongue is sufficient in a space of time which is almost inappreciable to produce a rapid cerebral hyperæmia. The face is flushed, the eyes become bright, and the temporal vessels throb, while at the same time there are the marked sensations of fullness. It produces more lasting congestion than does Amyl Nitrite, is much safer, and I have

¹ Thesis abstracted by Chicago Journal of Nervous and Mental Disease, April, 1874, p. 260.

found it to act better as an abortant than the latter. Any good pharmacist can prepare a solution containing one drop to ten of alcohol. This can be further diluted so that ten drops of alcohol shall contain one-tenth of a drop of the Nitro-Glycerine. It may be kept safely in this way, for alcohol prevents its explosion. A dose of a tenth of a drop is sufficient in the majority of cases.

Last of all, it seems almost unnecessary for me to direct attention to that most familiar remedy, Cod Liver Oil, which is so valuable in all nervous diseases.

Anstie treated a number of cases by Cod Liver Oil alone and cured seven out of twenty patients put upon this plan of treatment alone. Picrotoxin, a remedy recently brought forward, I have tried, and consider valueless.

The question of diet and personal habits are very important ones — particularly as the stomach is so often the seat of irritations which are transmitted to the over-active centers. Beyond the question of over-eating, it has been found that a vegetable diet is better suited to this class of patients. Mier-son, in the last volume of the West Riding Reports, publishes cases and makes comparisons between those epileptics placed upon a meat and vegetable diet. The results pointed to the superiority of the latter. As the greater number of epileptics have inordinate appetites, the diet should be strictly regulated.

It is a good plan, I think, to combine the remedies I have alluded to; and in conclusion I take the liberty of presenting a prescription I have used for several years:

R Strychniæ Sulph.	gr. j.
Fl. Ext. Ergotæ	$\frac{3}{4}$ iss.
Sol. Potass. Arsenit:	3 ij.
Sodii Bromidi	$\frac{3}{4}$ iss.
Tr. Digitalis	3 iiij.
Aquæ Menth. pip.	ad. $\frac{3}{4}$ iv.

M. Sig.: A teaspoonful before eating, in a half tumblerful of water.

If the attacks be of the form known as *petit mal*, I think either Ergot or Belladonna are our best agents. With either form of treatment it may be found often necessary to use auxiliary general treatment. The syrup of the combined phos-

phates, or the syrup of the Lacto-Phosphate of Lime, are good adjuncts; and salt baths, cold head douches, regular food, early hours, and the breaking off of bad habits, will often cure the disease, even when it has lasted for many years.

As a last resort, should continued medication prove useless, the actual cautery or a deep seton at the back of the neck will occasionally arrest these bad cases.

123 East 30th Street, New York, Sept. 27, 1876.

EXPERIMENTAL STUDY OF THE PROCESS OF REPAIR.

By I. N. DANFORTH, M. D.,

LECTURER ON PATHOLOGY IN RUSH MEDICAL COLLEGE.

(Read before the Chicago Medical Society, August 7th, 1876.)

The successful study of the healing process, in all its stages, has always been a matter of great difficulty. Indeed, I am not aware that any observer has heretofore attempted making consecutive microscopic observations at brief intervals, of the *same wound in living tissue*, from the time of its infliction to its complete repair; or of presenting figures drawn from nature, illustrative of this process. Let any one glance at the figures in "Billroth's Surgical Pathology" which are designed to illustrate the process of repair; it is evident that they are, in the main, diagrammatic, and that they illustrate what is *supposed* to occur, rather than what is *known* to occur. And, in general, the difficulties standing in the way of such studies are simply insurmountable. The time required for the observation of the various steps of such a process necessarily occupies several days, and demands very careful, delicate and nearly constant attention from the operator.

It is requisite in the first place to find a transparent and vascular¹ tissue which can be retained in one constant position, and *yet be kept alive*, for several consecutive days. Again,

¹ The following account does not, of course, apply to non-vascular parts.

the animal which exercises ownership over this living tissue, must somehow be induced to remain perfectly passive and non-resistant during the entire period of time needful for the experiment; one single violent attempt to escape after the experiment is fairly under way, would be quite sufficient to spoil the whole. Lastly, some anæsthetic or paralyzing agent must be employed which will produce quietude without causing death. It will be seen at once that this series of conditions involves some difficulties which must be surmounted.

Some time ago, Henry W. Fuller, Esq., of this city, President of the Illinois State Microscopical Society, requested me to contribute something in the way of a popular, illustrated lecture, for the entertainment (if not profit) of the Society over which he presides. Having studied inflammation many times experimentally upon the web, tongue and mesentery of the curarized frog, and having thus familiarized myself somewhat with the use of this singular poison, it occurred to me that it might be possible to inflict a small wound in the frog's tongue, and then watch the progress of the process of repair. But in order to render the fruits of such a study practically useful and available, it was also necessary that the changes which took place from day to day be fixed in some permanent form so that *others* could see them. This would render the services of an artist indispensable. When I communicated my plan to Mr. President Fuller, he at once authorized me to proceed, and draw on him for the required expense. As a result of this characteristic liberality on the part of Mr. Fuller, I am now in possession of ten "Artographic Lantern Slides," which very beautifully and faithfully represent as many stages of this most interesting, and, as I believe, novel experiment. And here it is proper that I should briefly explain the "Artographic" process of illustration, as well as acknowledge my obligations to its originator, Dr. R. U. Piper, of this city.

The "Artographic Lantern Slide," is essentially a Photographic Lantern Slide, colored so as to quite perfectly imitate nature in many instances and enable us in all cases to differentiate the various tissues and structures by conventional colorings. In the present instance Dr. Piper made careful drawings

by aid of the camera lucida, as often as any change worth recording took place in the wound. These drawings, which were of course mathematically correct and all drawn to the same scale, were then transferred to glass by a process of etching, the application of which is original with Dr. Piper; the etchings were then photographed by Mr. P. B. Green, of this city, and the resulting transparencies were colored by Dr. Piper's own hand.

It seems to me that this beautiful process must come extensively into use for the purpose of anatomical and histological demonstration, because it appears to supply a real want. The ordinary photographic transparencies of anatomical structures are wanting in sharpness and definition, and it is impossible to indicate different tissues by the aid of different colors. These important *desiderata* are quite perfectly supplied by Dr. Piper's process.

If the reader is not already discouraged by this somewhat prolix explanatory introduction, I will now ask him to follow the course of the experiment from the date of the infliction of the wound, to its complete repair. On the evening of February 23, 1876, a healthy, active, medium sized frog was brought under the influence of curare, by the subcutaneous injection of about $\frac{1}{20000}$ th of a grain.¹ The animal was then placed upon a frog plate, the tongue gently drawn out and its edges pinned to a piece of perforated cork, which was fitted to the opening in the frog plate; the perforation in the cork being covered by a slip of glass, upon which, of course, the tongue rested. Especial care was taken not to put the tissue of the tongue so much upon the stretch as to materially interfere with the free circulation of the blood, or the action of the blood-vessels.²

¹ I take pleasure in acknowledging my obligations to Lieut. Col. J. J. Woodward, M.D., of the Army Medical Museum, Washington, D. C. for a supply of genuine curare, without which this experiment would have been impossible.

² It must be remembered that the tongue of the frog is attached to the lower jaw in front, but is free posteriorly. In capturing insects the organ is thrown out of the mouth and drawn in again with inconceivable rapidity, the game being involved in a glutinous secretion.³

A minute wound was now made through the tongue by means of a pair of sharp pointed scissors, lengthwise of the organ, or in the direction of the muscular fibres; care being taken to select an islet of tissue which was least vascular, and in which the few vessels were quite small. The frog was now placed upon the stage of the microscope, the changes of the next half hour closely watched, and a faithful camera drawing made by Dr. Piper; the first drawing being executed at 9 o'clock, on the evening of February 23d, or about one hour after the wound was made. The appearances at this time were as follows: the wound was rather more than one-sixteenth of an inch in length; its form was nearly oval, the edges having been drawn apart by the contraction of the muscular fibers. The bottom or floor of the wound was covered by a pretty firm blood clot; the blood having slowly oozed from the cut ends of the minute bloodvessels which occupied the track of the wound. In watching the escape of this blood from the vessels, I noticed this singular phenomenon, namely: that the escaped blood globules, or more properly the current of extra vascular blood, moved in compact and orderly columns across the floor of the wound; that is, after the vessels were cut and hæmorrhage had ensued, the escaped blood did not flow in *all* directions in a helter skelter disorderly manner, but formed itself into different columns, representing the different vessels from which it flowed, and these several columns advanced in regular order, with but little variation in their course, until two streams chanced to encounter each other, when the larger and stronger stream would generally bear away the smaller and weaker one.

In another hour all oozing of blood had ceased, coagula had formed in the wounded vessels up to the next collateral branch, and the condition of the wound and its immediate surroundings was that of apparent "masterly inactivity." The tongue was now (10 o'clock) covered with a light compress of muslin wet in water, the frog's skin moistened, and the animal laid aside for the night.

February 24th, 9 A. M., (12 hours after injury,) circulation is now active in all parts of the tongue, except immediately

around the cut. In the immediate vicinity of the wound, the vessels are distended and gorged with blood, and stasis has occurred in the greater part of them. In some, however, the circulation is still wonderfully active and vigorous. The walls of the wound are mostly smooth and sharply defined, but from the (apparently) upper and lower border, a little bud, irregularly knotted, pale and terminating in a club-shaped extremity has commenced shooting out; the two buds (which are two masses of round cells) are almost opposite, and seem to be growing toward each other. "I have an impression," says the record which I made at the time, "that they are incipient blood vessels, and that I am about to witness the growth of new vessels." The floor of the wound presents, 1st, a few minute coagula, 2d, blood globules, both white and red, and 3d, a few pale, very minute fibers of fibrine. The changes were so slight, that it was not deemed necessary to make a drawing this morning.

February 25th, 9 A. M., (36 hours after injury.) "The little growing buds from which I expected so much, have undergone no further development since yesterday; in fact they have grown smaller." The minute fibers, on the floor of the wound have increased, and are interwoven in all directions, and in their interstices are many blood globules of both varieties. The surrounding vessels are enlarged, and somewhat tortuous; in vessels which show any movement of blood at all, the circulation is very active. Small coagula are seen at intervals along the border of the wound. The tissues surrounding the injury are becoming slightly cloudy, unlike the sharpness and clearness of the more remote strictures. On examining the tissues involved with No. 5 Hartnack, I can easily see that the cloudiness is due mainly to the migration of leucocytes, which are rapidly insinuating themselves into the¹ areolar and muscular interstices.

¹ I ought to have said before that the studies were chiefly made with Tolle's inch, and the "a" eye piece, a combination giving on my microscope about 85 diameters; the drawings were all made from this combination. The quarter inch was employed daily however, for the purpose of studying the minute changes.

February 26th, 9 A. M., (60 hours after injury.) The wound is considerably smaller; the cloudy appearance of the surrounding tissues has increased; the border of the wound is now quite thickly fringed with little buds or protrusions, which, upon being examined with a quarter inch, are seen to be composed almost exclusively of cells. In some of these growing buds, a minute blood-vessel, with its tiny blood stream, can be made out. These vessels are always in the form of loops, a single minute current flowing into the cell bud through one branch of the loop, and immediately returning through the other. Here, then, we have a granulation growing up under our eyes, under conditions which admit of its being quite freely observed in a leisurely and satisfactory manner.

The circulation in the vicinity of the wound is very active; the blood-vessels are dilated and tortuous; stasis is no longer present except in a few quite small vessels. The veins in the periphery of the microscopic field are enormously distended, and the blood stream is both very dark and very slow. In some of the vessels in sight, the jerky, interrupted movement of blood, so often described by authors as occurring in inflammation, can be very distinctly seen. Many blood globules are seen on the floor of the wound, but the net work of fibers spoken of in yesterday's record has nearly disappeared.

February 27th, 9 A. M., (84 hours after injury.) The area of the wound is no smaller than it was yesterday; in fact it seems a little larger. New vessels are multiplying around the wound, and new buds are pushing their way into the open space. The floor of the wound is now occupied by a thickly woven reticulated net work of minute fibers of coagulated fibrine, which have formed since the last observation. The interstices are filled by blood globules, both red and white. The circulation is very active, and the frog seems in good health.

February 28th, 9 A. M., (108 hours after injury.) The size of the wound has diminished very greatly since yesterday. No other marked change has taken place; the circulation seems neither more or less active than it was yesterday; new

vessels are still forming; new granulations are springing up, and the size of the wound is rapidly diminishing.

February 29, 9 A. M., (132 hours after injury.) Several new blood vessels appear this morning, and the pre-existing ones, especially the veins are enormously dilated. The wound diminishes with great rapidity. The walls or "banks" of the wound now present a very curious and interesting appearance. At short intervals, little semicircular rills of blood are seen running along the shelving and somewhat precipitous "banks." Each little semicircle, or loop, is covered in by a dense layer of small round cells; the deeper layer of cells assume a spindle form; thus new fibers are formed, and the wound is repaired.

March 1st, (156 hours after.) The cut is now reduced to a minute oval slit, and the floor is quite covered with minute newly formed fibers, interwoven in all directions. Meantime, new granulations are continually forming along the side-walls or banks of the injured part, and thus the solution of tissue-continuity is being repaired.

March 2d, (180 hours after.) With this record, the daily observation ceases. The wound is now practically closed, and its original area is nicely mapped out by the presence of new (cicatricial) tissue.

March 8th, (fourteen days after the infliction of the wound.) The frog was again curarized, the cicatrix examined, and a careful drawing made. It was easy to trace the exact extent of the injury by the lighter color of the new tissue. The cicatrix was entirely made up of new connective tissue; no regeneration of muscular tissue could be discovered. The new connective tissue appeared to be entirely the product of spindle-shaped cells, interwoven in all directions.

On a future occasion, the series of photographic pictures will be shown to the Society, projected on the screen, if an opportunity is afforded.

In conclusion, I desire briefly to call the attention of the Society to the lessons which the experiment has afforded:

First—And as it seems to me most important, is the demonstration of the fact, that continuous experiments in physiology

and pathology may be successfully and profitably carried on outside of special laboratories. When the frog is placed under the influence of curare, perfect quietude is insured, and the charge of cruelty no longer obtains. According to Dr. J. Burdon Sanderson, chloral may be made to answer the same purpose, from one to three grains in solution, being injected under the skin. The effect of chloral, however, is less permanent than that of curare; a dose of the former quiets the frog for six or eight hours only, while it takes fully twenty to twenty-four hours to recover from the influence of a single dose of curare.

Secondly—I was surprised at the frequent changes in the condition of the blood-clot in the wounded part, and at the frequency of the escape of fresh masses of blood. At first free hæmorrhage occurred, and the cavity of the wound was speedily filled with a coagulum. In a short time, the red globules had nearly disappeared, an intricate network of fine fibrinous fibres had formed, and in the interstices of this network, multitudes of mobile cells (*i. e.*, leucocytes) had accumulated. A few hours later, this clot had nearly disappeared, the fibers were wanting, except at the periphery of the wound, but a great number of leucocytes still remained and continued their wanderings over the floor of the wound. Several times while the tongue was under examination, the tenuous walls of the newly formed vessels would yield to the pressure of the blood stream. Hæmorrhage would occur, a fresh clot would form, only to disappear after an interval of a few hours. Meantime new fibers were forming between the periphery of the clot (or successive clots), and the inner border of the wound, so that the area of the wound was constantly growing smaller.

Thirdly—The constant and progressive dilatation of the larger vessels—especially the veins—in the immediate vicinity of the wound, was much greater than I anticipated. Some of the veins appeared like enormous channels or sinuses, excavated in the tissues, rather than actual vessels, with their proper tunics; and this condition of things remained for many days after the termination of the experiment.

The question as to the origin of the newly-formed fibers of the cicatrix came up, but I confess my inability to give a satisfactory answer.

Three sources are possible: 1st, they may be the product of the differentiation of the extravasated fibrine, or rather fibrine producing materials; 2d, they may be derived from the leucocytes, or from the progeny of the leucocytes; or 3d, they may be the result of the proliferation of the connective tissue corpuscles, situated in or upon the borders of the wound.

The discussion of this question, which is one of great pathological interest, would form a respectable paper of itself. As to the real facts, I am not yet prepared to express any decided opinions. If future experiments shall prove any more satisfactory, the result will be at the service of the Society.

SUBPERITONEAL FIBROID TUMOR OF THE UTERUS, REMOVED THROUGH AN INCISION IN THE POSTERIOR WALL OF THE VAGINA.

By R. STANSBURY SUTTON, A.M., M.D., OF ALLEGHANY, PA.

Until February, 1870,¹ the history of surgery furnishes no instance in which a tumor growing within the peritoneal cavity was removed through the posterior wall of the vagina. The honor of having first suggested and performed the operation belongs to Dr. T. Gaillard Thomas, Professor of Obstetrics and Diseases of Women, in the College of Physicians and Surgeons, of New York. This case was one of Ovarian Tumor "the size of a large orange." The patient recovered.

In 1872,² Dr. R. Davis, of Wilkesbarre, Pa., removed by this route, an Ovarian Tumor, weighing 9 lbs. This patient recovered.

¹ Amer. Jour. Med. Sciences, April, 1870; also, Peaslee on Ovarian Tumors, p. 319.

² Trans. State Med. Soc. of Pa., 1874; also, Half Yearly Compend Med. Science, Jan. 1876.

³ New Orleans Med. and Surg. Journal, Nov. 1873.

⁴ Amer. Jour. Med. Sciences, July, 1876.

In 1873,³ Dr. S. T. Gilmore, of Mobile, Alabama, had a successful case.

In 1874,⁴ Dr. Robert Battey, of Atlanta, Ga., had a successful case.

Until the present year, four American Surgeons had successfully removed Ovarian Tumors *per vaginam*, and in no instance had the operation been followed by symptoms unusually severe. I have failed to find any record of the removal of subperitoneal fibroids by this method; and so far as my knowledge extends, I do not know that the operation has ever been attempted, excepting by myself in the following case. I take the case from my note book.

June 19, 1876. Emma G——, a black woman, was admitted to my ward to-day, after my visit had been made.

June 20. She is fifty years of age, her skin is hot and dry, temperature 103°, tongue furred, edges red, has considerable tenderness over the abdomen, especially in the right iliac region. Her bowels have not been moved for more than a week, and she complains of a pain down the entire length of the right sciatic nerve and its terminal branches. Says she has a tumor in the pelvis. Ordered a sponge bath of tepid water, to be repeated occasionally, and a mixture of solution of citrate of magnesia, fluid extract of senna, and syrup of ginger, to be given immediately.

June 21. Temperature normal, tongue cleaning, the bowels have been moved freely, less abdominal tenderness exists.

An examination *per vaginam* reveals a large, solid tumor, ovoidal in shape, filling the right half of the pelvic cavity, and pushing the uterus firmly to the left lateral wall. The pressure of the finger against the tumor elicits pain, and the surface of the tumor is rough and as hard as bone. The sound enters the uterus just two and one-half inches. The uterus can be moved but the tumor cannot. With the sound in the right hand and the index finger of the left pushed hard in between the uterus and tumor, a connecting band between the uterus and tumor is discernable, beginning just above the vaginal attachment. The tumor pushes the posterior and right lateral vaginal walls downward and forward. A finger in the

rectum finds the growth pressing upon the canal, and pressure elicits pain but no motion in the growth. She was now placed upon her knees with the chest resting upon the bed. A prolonged and severe effort by pressure with two fingers in the vagina, failed to more than barely move the tumor, and it was impossible to dislodge it from the pelvic cavity. Pressure with the left hand above Poupart's ligament in the right iliac region detects the growth.

Diagnosis. A subperitoneal fibroid tumor of the uterus, which is pediculated, and which has undergone cretaceous degeneration; which process has produced these inflammations, resulting in adhesions short and strong. This diagnosis was strengthened by the fact that she gave evidence of having had several attacks of fever, attended with severe pain in the lower part of the abdomen. These attacks in nearly every instance followed the effort necessary to do a day's washing. She sustained herself as a domestic, but latterly found all exercise painful. Ordered $2\frac{1}{2}$ grs. quiniæ sulphat. and 3j elix. bis-muthi after each meal. Good diet, sponge bath daily.

June 23. Ordered sol. magnesiæ citrat. with ext. sennæ. Operated satisfactorily.

June 24. I called the entire staff together to-day for consultation. By invitation, Dr. A. M. Pollock was present with us. The patient is feeling moderately comfortable, has no fever, tongue clear, skin moist, pulse rapid, nervous.

The diagnosis at which I had arrived was stated, and the patient being now under the influence of ether, Dr. Pollock was invited to examine the case. He introduced his hand into rectum and with considerable effort was able to get some movement in the growth, but found it impossible to dislodge it from the pelvis, after pursuing his examination to the end, the various members of the staff examined the case as carefully as possible without again introducing the hand into rectum. The ether was withdrawn, the patient left with the nurse, and we retired for consultation.

No opinion was offered by any of the staff—Dr. Pollock expressed himself as not entirely satisfied that the growth was a fibroid or connected with the uterus, that it was hard enough

to be an exostosis. In reply to his question as to whether I was entirely satisfied, I replied that I was. We then passed on to the question of treatment. It was the opinion of all that medical treatment was in this case of no avail, and that an effort to remove it by an operation was of questionable propriety. To abandon the woman to her condition was to leave her to constant suffering and to the charity of the public for sustenance. She rebelled against this, preferring to die from an operation, rather than be abandoned thus. In view of all the facts, we decided to make an effort to remove the tumor, and as the operation devolved upon me, I was left to select the method.

June 25th, 11:30 A. M. After the examination yesterday, a full dose of opium was administered, and at 9 A. M. this morning 25 gtt. tinct. opii, were given by the mouth. The patient slept well last night and is in very fair condition this morning. The patient was placed upon the table on her left side in Sim's position, the bladder emptied with a catheter. Drs. McCoy and C. C. Lange took charge of the anæsthetic (Squibb's ether). Sims' speculum was now introduced and held by Dr. Pollock, while the limbs were guarded by the left hand and the right side of the nates elevated by the right hand of Dr. Purviance, who stood opposite to Dr. Pollock. In addition to the gentlemen mentioned there were present Drs. Estep and Gieseking of this city, and Dr. Hugh L. Guthrie of Sparta, Illinois. All being ready I proceeded to operate as follows:

The posterior wall of the vagina was seized about midway between the rectum and cervix uteri, with a tenaculum and cut through with one stroke of the scissors; with a probe pointed bistoury and the aid of a tenaculum, this incision was extended as far as possible toward the rectum and toward the cervix. All bleeding being arrested by sponging with cold water, the peritoneum was picked up with Sim's small tenaculum and cut through with the scissors. This incision was now made of the same length as the former, with the probe pointed bistoury. The finger was now readily brought in contact with the tumor. An effort made to enucleate the growth in its position failed. The hand, first dipped in car-

bolized water, was carried into the cavity of the pelvis, the tumor grasped and all its adhesions forcibly broken up. It was found to be attached by a fleshy pedicle to the posterior wall of the uterus. When the hand was withdrawn, the small intestines followed into the vagina. These were carefully pushed back with the hand, which was again carried up to the growth. A pair of strong vulsellum forceps were carried closed along the front of the wrist and palm of the hand and carefully expanded over the tumor, which was now seized and drawn into the vagina, the index finger of the left hand working back over the growth as much as possible the lips of the vaginal wound. The speculum was again introduced, and the exposed capsule incised as far as it could be reached and with the aid of a pair of dressing forceps, a tenaculum handle, and the finger nail, it was stripped back beyond the equator of the growth on all sides. The tumor now occupied the vagina and a second pair of forceps being fastened upon its stripped surface, the first pair were carefully removed. A pair of guarded hooks were also fastened into it and by these with Dr. Pollock's assistance, we pulled the tumor through the external outlet of the pelvis. Dr. Guthrie supporting the perineum with one hand and stripping back the capsule with the thumb nail of the other, as the tumor came out. Two vessels in the pedicle required ligation. The pedicle with some folds of small intestine in the vagina were now pushed back into the abdominal cavity. No stitches were applied in the vaginal wound. The patient had been forty minutes under the anæsthetic of which eight fluid ounces had been consumed.

The patient was now put to bed, pulse one hundred and twenty. Ordered $\frac{1}{8}$ gr. morphiæ sulph. every three hours, oftener if required.

4 P. M. Catheter used — to be used every six hours.

7:45 P. M. Pulse one hundred and thirty, skin hot, no pain. Continue $\frac{1}{8}$ gr. doses of morphia as required, and give five drops of tincture of verat. virid. every three hours. To have milk *ad libitum*.

June 26th, 9 A. M. Patient has slept some, pulse one hundred and eighteen, temperature 102° , slight nausea. Dis-

continue veratrum, give ten grs. quinine every three hours, continue morphia. The tubes of a stomach pump was carefully passed just beyond the vagina, and a quart of slightly carbolyzed warm water discharged through it, this returned at first cloudy then clear.

3 P. M. Pulse one hundred and fifty four, temperature $104\frac{9}{10}^{\circ}$, great tympany, complains of pain.

5:45 P. M. Pulse one hundred and forty-eight, temperature 104° , tongue coated and dry. Repeated the douche. Pulse fell four beats, and temperature $\frac{1}{10}$ of one degree — continue quinine and morphia. To have ten drops of veratrum.

9 P. M. Pulse one hundred and thirty-six, temperature 101° . Pulse easily compressed, vomited at 7 P. M.

9:45. Passing gas off by the bowel.

June 27th, 9:15 A. M. Pulse one hundred and twelve, temperature $98\frac{1}{2}^{\circ}$, tongue moist. Used the douche again and let the gas off the lower bowel with a tube passed into the rectum.

10:45 A. M. Patient sleeping, legs stretched out, seems comfortable, pulse one hundred and eight.

June 28th, 10 A. M. Has been restless for several hours, pulse one hundred and twenty, temperature 101° , complains of pain, has had no morphia all night. Had some discharge from bowels, morphia to be resumed.

12 M. Temperature 103° , pulse one hundred and thirty.

3 P. M. Temperature $104\frac{1}{5}^{\circ}$, pulse one hundred and forty, tympany great, cerebral excitement.

9 P. M. Temperature not taken, pulse one hundred and sixty.

June 29th, 9 A. M. Patient died this morning.

Post Mortem. Present Drs. Sutton, Pollock and C. C. Lange.

A careful investigation revealed a wound of the small intestine, which had been made with a prong of the vulsellum during the operation. This wound was only discovered by making pressure along the intestines and finding that gas escaped at what was a mere pin hole, leading down from which was the line of a little rent which was so completely glued as to

require some effort to separate the edges. At what stage in the operation this occurred I do not know. The danger was appreciated and careful attention given to avoid it. Doubtless the escape of gas was one cause of the peritonitis which carried her off.

No comment, probably, is necessary on this case, but I cannot resist giving expression to the impression it has left upon my mind. *First*, that fibroid or solid tumors are extremely difficult to remove by this method, and *second*, that all operations for the removal of tumors from the cavity of the peritoneum are more easily and safely performed through the linea alba.

A CASE OF CLONIC CONVULSIONS.

REPORTED BY DR. C. A. ROOD, MONROE, WIS.

I was summoned in haste at 3 A. M., Monday, May 8th, to see Mr. H. E., aged twenty-one years, of a nervous temperament, suffering from convulsions. Upon arriving, found the young man sitting in an arm chair, unconscious, having clonic spasms of the entire body—most marked in the muscles of the back—so severe as to require three men to hold him and prevent his injuring himself and those about him.

I had him removed at once to the bed, and placed in the recumbent posture, when I began administering chloroform by inhalation, which soon quieted and brought him under control.

Upon inquiry found that he had attended a Sabbath School Concert the evening previous, from which he returned feeling perfectly well. Before retiring, he ate quite a hearty meal which seemed to distress him considerably, as he was restless and unable to sleep soundly. At 2 A. M., he arose and went down stairs to procure a drink of water, stating to his companion that he felt sick at his stomach. While down stairs he was attacked with spasms which he continued having for a half hour after my arrival.

From the history ascertained, I concluded that the hearty meal taken just before retiring was the exciting cause; consequently I administered an emetic which I was obliged to repeat before procuring the desired effect. The second dose being effectual, caused him to eject quite a quantity of undigested meat, etc., etc. This seemed to ease him completely, as he soon returned to consciousness, the spasms ceasing, and leaving him perfectly rational.

8 A. M. Found him feeling well, pulse natural, has slept some since my previous visit.

5 P. M. Patient sitting up, slept considerably during the day and is gaining rapidly. Thinking all would go well and that simply a good night's rest was all that was required, I left some Dover's powder to be taken at bed time, providing he did not rest well. To my surprise, I was summoned in haste at 7 P. M., of the same evening. The patient was again in spasms.

I was soon at his side administering chloroform. The spasms were not so severe as those of the morning previous and they succumbed more readily to the influence of chloroform. I commenced giving fifteen grain doses of bromide of potassium every two hours. The pulse during as well as intervening the spasms, was at that time natural. At 9 P. M., he had another spasm; at 11:30 P. M., another, and at 4 A. M., May 9th, still another. I now began giving, alternately with the bromide, seven and one-half grain doses of hydrate of chloral.

He seemed now to rest well, complaining of nothing except a soreness in the muscles from excessive straining. At 12:30 P. M., he had another spasm. I commenced giving two grains of assafoetida every hour, in lieu of the bromide, continuing the chloral.

The following night, *i. e.*, May 9th, he had three of these spells, regularly at the stated hours of the night previous. After the third one, which was at 11:30 P. M., his pulse was slow and full, and he was more drowsy. I now bled him some ℥ viij , and commenced giving quiniæ sulphatis. grs. ij, every hour during the day, alternating with the assafoetida,

thinking he might be malarious, as the spasms seemed to assume a periodical type, gave the chloral p. r. n.

No more spasms occurred until 11 p. m., May 10th, at which time they were very light. Pulse slow and full, patient drowsy. I again bled him some two ounces more than upon the previous night, which rapidly improved the symptoms quite perceptibly.

May 11th. Patient feeling quite well, sitting up most of the time. Appetite good, says he cannot eat enough.

Friday, May 12th. Patient up about the house and yard, in the afternoon about town.

Saturday, May 13th. He has left town to take a few days of rest and country air.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES, COMPARED WITH THAT OF OTHER REGIONS.

By EDMUND ANDREWS, A M., M.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF SURGERY IN CHICAGO MEDICAL COLLEGE,

ASSISTED BY THOS. B. LACEY, M.D.,

ASSISTANT SURGEON IN THE NATIONAL SOLDIERS' HOME.

(Continued.)

EXCISIONS OF THE WRIST JOINT.

I have occasionally performed this operation, but have preserved no records of the cases, nor obtained any from other Lake State surgeons.

Abroad the statistics are very meager, and of doubtful value.

I have gleaned from various works three hundred and five cases, with fifty-seven deaths, which is a mortality of nineteen per cent. Many of the cases were only partial, leaving the complex articulations of the remaining bones to suppurate and breed pyæmia in very unfavorable circumstances. It appears to me that complete resections would be far safer. The

utter poverty of the literature on this subject compels us to lay it aside as not yet properly investigated.

Probably a complete resection would be advisable whenever it offers a fair opportunity to save a hand, whose innervation and circulation is in fair condition.

RESECTIONS AT THE HIP JOINT.

Of these I have nineteen cases from the Lake States, with eight deaths, which is a mortality of forty-two per cent. They were all cases of caries of the joint. The literature of the profession furnishes us the following figures for other regions:

TRAUMATIC PRIMARY RESECTIONS OF THE HIP ABROAD.

AUTHORITY.	CASES.	DIED.
Circular No. 2, S. G. O., p. 137, collected by Otis	39	36

Mortality, 92 per cent.

TRAUMATIC INTERMEDIARY RESECTIONS OF THE HIP ABROAD.

AUTHORITY.	CASES.	DIED.
Circular No. 2, S. G. O., p. 137, collected by Otis	33	30

Mortality, 91 per cent.

PURELY SECONDARY RESECTIONS OF THE HIP ABROAD.

AUTHORITY.	CASES.	DIED.
Circular No. 6, S. G. O., p. 137	13	11

Mortality, 85 per cent.

COMBINED INTERMEDIARY AND SECONDARY RESECTIONS OF THE HIP ABROAD.

AUTHORITIES.	CASES.	DIED.
Warren, American Confed. Army	1	0
Chisholm, " "	2	1
Billroth's Briefe	2	2
Deutsch. Zeit. f. Chir. Bd. I., S. 187	1	1
Archiv. Klin. Chir., B. 13, S. 575	1	1
Totals	7	5

Mortality, 71 per cent.

Extensive statistics have been gathered on the Pathological Resections of the Hip Joint, by Hodges, Ashurst, R. Good, Heyfelder, Sayre, Fock, Leisrink and H. Lyster. These have been carefully collated by Ashurst, in the Pennsylvania Hospital Report, 1869, and in his Surgery, 1871. Gant, in his Surgery, published the same year, gives a collection of late cases from British hospitals, which appear to be mostly or entirely additional to those collated by Ashurst. The two collections taken together give a tolerable summary of what is known on the subject, and are here subjoined:

PATHOLOGICAL RESECTIONS OF THE HIP JOINT ABROAD.

AUTHORITIES.	CASES.	DIED.
Ashurst's Surgery, p. 605; terminated cases.....	327	163
Gant's " p. 638; " "	79	22
Totals.....	406	185

Mortality, 46 per cent.

The cases of Sayre and other American surgeons are included in Ashurst's collection, with many from Germany, France, etc. Gant's cases are all British, and show decidedly better results than Ashurst's figures, which are gathered from all nations. The French and German cases especially are very fatal.

GENERAL SUMMARY.

	LAKE STATES.			ABROAD.		
	CASE	DIED	PER CT. MORT	CASE	DIED	PER CT. MORT
Primary				39	36	92
Intermediary				33	30	91
Purely secondary				13	11	85
Combined intermediary and secondary				7	5	71
Pathological	19	8	42	406	185	46

It appears, therefore, that in the Lake States we have no recorded experience of traumatic cases, but in pathological ones our results are somewhat better than the average given in surgical literature, and immensely better than in France, where Leisrink gives a mortality of eighty-six per cent. The

seventy-nine late cases from British hospitals, however, give only twenty-eight per cent., which is better than the Lake States by eighteen per cent.

OPINIONS OF AUTHORS.

Only a few years ago excisions of the hip joint for disease were generally condemned, but of late this opinion has been reversed.

Ashurst, (Penn. Hosp. Rept., 1869,) thinks it a serious operation, only to be undertaken when there is no reasonable prospect of recovery without it. He concludes:

1. That the sex of the patient is immaterial.
2. That the age is important, the success before puberty being much greater than after.
3. That total excisions are as successful as partial.
4. That in fatal cases only one-fourth of the deaths are due to the operation.
5. That in gunshot wounds (p. 211, Ashurst's Surgery,) fracturing the joint, excision, though very fatal, is the safest course.

Gant's Surgery, p. 632, claims that destruction of the articular cartilages of the hip without ankylosis always justifies the excision, (Mr. Hancock advocates the same practice,) but that the operation should not be performed for mere ankylosis. Mr. Gant says that disease of the acetabulum does not prohibit the operation, but that the effect of spontaneous dislocation is rather to be reckoned as opposed to excision. For gunshot fractures of the joint he seems to favor the excision, as being excessively fatal, yet about the only hope left the patient.

Prof. Sayre, of New York, says (*Orthopedic Surgery*, page 284), that in hip disease, with vitiated constitution and bones diseased beyond the operator's reach, the patient is probably hopeless; but when the disease is chiefly local, the constitution not undermined, the bones not affected beyond the possibility of removal, and the circumstances of air, food, etc., favorable, the operation offers the best possible chances of recovery.

Holmes, of England, in direct contradiction to Sayre, thinks

that the poor patients, located in bad air and under bad nursing, are the ones that ought to be operated on to relieve them, as quickly as possible, from the irritating diseased bone, while patients in good circumstances will have a better chance without operation.

Hamilton favors the operation in a suitable selection of carious cases, but doubts its applicability to gunshot wounds.

Gross, Erichsen, Druitt, Bryant, Holmes and Johnstone favor it in a proper selection of cases of hip disease.

Dr. J. S. Sherman, late Professor of Orthopedic Surgery and Diseases of the Joints in Chicago Medical College, says that in determining the question of excision for hip disease, "the general condition of the patient should be considered as much as the condition of the joint itself. Cases in which the general condition is bad, and which do not yield readily to treatment, should be operated on early, independent of the amount of caries; but where the general condition is good, and endurance can be expected, the operation should be postponed. The majority of such cases recover excellently without operation. Hence, it is justifiable to give them a chance and not exsect early, but if exhaustion occurs exsection is necessary."

Surgeon Otis, of the U. S. Army (Circular No. 2, S. G. O. P. 123), after the most elaborate view ever made of the subject of gunshot wounds of the hip, says:

"Primary excisions of the head and upper extremity of the femur should be performed in all uncomplicated cases of gunshot fractures of the head or neck. Intermediate excisions are indicated if the diagnosis is not made out till late, and also in gunshot fracture of the trochanter with consecutive arthritis. Secondary excisions are demanded by caries or secondary involvement of the joint from fractures or wounds in the immediate vicinity."

"Expectant treatment is to be condemned in all cases in which direct injury to the articulation can be clearly established."

Hamilton, as we have already mentioned, doubts the soundness of Otis' conclusion.

CONCLUSIONS.

In caries of the hip joint, below the age of puberty, excision is not a very dangerous operation; and, although the mortality is from twenty-five to forty per cent., yet only one-twelfth of the deaths are due to the operation. Almost always the patient is relieved, and if he dies it is in spite of the operation. Above the age of puberty the danger of the operation is much greater, and the majority of the patients die.

If this excision is contemplated, therefore, in a child approaching the age of puberty, it should be done as early as possible, and after that age should not be done at all if it can be avoided.

Formerly excision of the hip for caries was generally condemned, but some twenty years ago the old prohibitions were broken over, and numerous cases were operated on. As experience accumulated, however, it was found that though the operation rarely killed the patient, yet the wounds were very slow in healing, so that in many instances those that were not operated on recovered fully as early as those subjected to excision. This damped the ardor of the operators somewhat, and at the present time we seem to be forced to about the following conclusions:

1. Cases of morbus coxarius which do not suppurate, of course do not suggest any operation.

2. Suppurative cases, which do well under tonics, antiseptic injections, etc., should have a full and prolonged trial of expectant treatment, and only be operated on if their progress seems to be obstinately slow.

3. Cases below puberty, which gradually get worse, the fistulas refusing to heal, and the patient steadily losing ground, should be operated on reasonably early, without waiting for extreme exhaustion.

4. Cases above puberty may be operated on if no other hope exists, but not until the minor operation of opening the joint and using antiseptic injections and dressings has been thoroughly tried on Lister's plan.

5. Sex exerts little influence on the results.

6. Disease of the ilium, to a moderate extent, is no obstacle to excision.

7. When spontaneous luxation occurs it usually relieves the patient of a great irritation, and favors spontaneous recovery, but if otherwise it constitutes no objection to excision.

8. The great majority of cases of suppurating hip disease will recover without operation.

9. In uncomplicated gunshot fractures of the hip joint, the present state of science indicates that excision should be performed as soon as possible, yet nine-tenth of the patients are reported as dying; and if all the cases were known, which the chagrin of the surgeons caused them to suppress, the mortality would show still worse. It is greatly to be desired that more light should be had on this terrible subject. Surgeon Otis could scarcely find a single clear case of recovery from gunshot fracture of the hip without operation (Cir. No. 2, p. 121), yet the depth of the parts caused the diagnosis to be very doubtful in many cases; and we may well stagger at an operation whose deaths are an unknown quantity, ranging somewhere between ninety and one hundred per cent. of the whole.

Perhaps the antiseptic plan would give better results.

RESECTIONS OF THE KNEE JOINT.

This operation has received little favor in the Lake States. I have records of only eight cases, of which three died. All the eight cases were pathological.

In other regions we have the following list. (The numbers being too few, and the records too imperfect, the traumatic cases cannot be classified into primary, intermediary and secondary. They are all for gunshot wounds and display a fearful mortality):

TRAUMATIC RESECTIONS OF THE KNEE JOINT, ABROAD.

AUTHORITIES.	CASES.	DIED.
Circular No. 6, American Cases.....	10	8
" No. 6, Foreign ".....	12	11
Chisholm, Confederate Army, United States.....	4	3
Warren " " " ".....	1	0
Billroth, Arch. klin. Chir. B. X. und Briefe.....	2	2
Billroth's Briefe, p. 267.....	20	17
Geissel, German-French War.....	3	3
Herrgolt, " " " ".....	1	1
Totals.....	53	45

Mortality, 85 per cent.

PATHOLOGICAL RESECTIONS OF THE KNEE JOINT, ABROAD

AUTHORITIES.	CASES.	DIED.
Boston City Hospt. Rept.....	6	1
Cases Collected by Dr. R. Hodges, Boston.....	208	60
" " " M. L. Peniere, 1762 to 1869.....	431	131
" " " Gant from British Hosps. Gants' Surgery p. 621.....	241	64
Sundry German Operators.....	15	9
Totals.....	901	265

Mortality, 29 per cent.

Some of these figures of different authors include, partly, the same cases as others, and their analysis does not enable me to separate them completely; but as the repetitions affect both columns alike, they do not materially change the ratio of mortality.

GENERAL SUMMARY OF RESECTIONS OF THE KNEE.

	CASES.	DIED.	PER CT. MORT.
Lake States, Pathological.....	8	3	37
Traumatic, Abroad.....	53	45	85
Pathological, ".....	901	265	29

It appears, therefore, that, contrary to our experience in amputations, pathological resections of the knee have been less successful here than abroad. However, the number of our cases is so small that this may be an accidental occurrence.

OPINIONS OF AUTHORS.

Hodges shows that excision of the knee has a higher mortality than amputation above it, and that out of 208 case 102 failed or died.

Bryant, of London, shows that of 431 cases of disease of the knee which were amputated, the mortality was only twenty-two per cent., while of 178 similar cases resected, thirty-nine per cent. died. After a careful reievew of the subject, he opposes the operation.

T. Holmes speaks discouragingly of the operation, but allows that it may, perhaps, be done in chronic disease of the knee, in patients below the middle age.

Gant favors excision cautiously in caries, provided the disease does not occupy too much of the bones. He endeavors to show that the mortality of excision of the knee is no greater than that of amputation of the thigh, and consequently preferable, because it saves the limb with no greater risk than is incurred in amputation. In this argument he commits the singular error of comparing the mortality of the excision with that of amputation of all parts of the thigh, high and low, alike. Now, the choice lies only between excision and amputation at the lower third of the thigh, where the mortality of amputation is much less than that of excision.

Pirogoff disapproves the operation in war surgery.

Hamilton discourages the operation, especially in gunshot wounds.

McLeod and Longmore oppose it in military practice.

Ashurst opposes it in gunshot cases, but allows it in disease. He says it is not very successful below five years of age, and very fatal in persons past the prime of life; but the safest period is from five years to puberty. Recent cases of disease should generally not be operated on; but only those which have either actually proceeded to caries and suppuration, or else show the characters of gelatinous arthritis (white swelling of old writers), in the doughy, semi-elastic swelling. In a suitable selection of such cases he recommends excision, but in those who are too old, or too young, or who have vis-

ceral complications, or too extensive disease of the bone to leave a useful limb after its excision, or who cannot afford the long time of recovery which excision requires, amputation is to be preferred. (*Med. Record*, Vol. 2, p. 443.)

Erichsen allows it doubtfully in extensive disease or faulty ankylosis.

Sir Geo. Ballingall favored it in civil, but opposed it in military practice.

Guthrie favored it in military practice, provided all the circumstances were favorable.

Gross approves it for disease, if the latter is not too extensive.

Butcher, Swain, Ferguson and P. H. Watson approve it strongly, and Druitt says it is one of the greatest triumphs of modern surgery.

CONCLUSIONS.

The above opinions are contradictory enough to satisfy the genius of discord. In such a confusion of precepts of the masters, we must appeal to the facts, which give us the following results:

	PER CENT.
Mortality of Traumatic Amputations of the Lower Third of the Thigh, Abroad.....	45 to 60
Mortality of the Traumatic Excisions of the Knee Joint, Abroad..	85
Mortality of Pathological Amputation of Lower Third of Thigh, Abroad.....	20
Mortality of Pathological Excision of the Knee, Abroad.....	29

The figures of the Lake States, so far as they go, confirm the showing of a much greater mortality for the excision than for the amputation.

Eighty-five per cent. is a terrible death rate, and is sufficient to condemn the traumatic excision to final oblivion. The pathological excisions are only nine per cent. worse than the amputations, and this difference is not so great but it may be properly overruled in some cases where the importance of saving a natural limb is very great. The drawbacks, however, must be considered, and they are these:

1. Owing to the inflamed condition of the bones the time of healing is often ten or fifteen months.

2. There is always considerable doubt about such an ankylosis of the bones as will enable the patient to step on the limb.

3. A large per centage of cases fail so completely as to necessitate a subsequent amputation.

4. In children, if the operator removes the entire epiphysis of the femur, the growth of the limb in length is, in a great measure, arrested.

A candid consideration of all these facts renders it impossible for the conscientious surgeon to recommend excision of the knee joint in more than a very few unusual cases.

The eight pathological excisions of the knee in the Lake States are too small a number to yield any special conclusions, yet the three deaths in the eight cases are a dismal recommendation when compared with our twenty-two pathological amputations of the lower third of the thigh, without a single death.

RESECTIONS OF THE ANKLE JOINT.

Of these the Lake States furnish us nine cases with one death, which is eleven per cent.

Abroad the literature is scanty, so that the subdivision of traumatic cases is impossible. Taken together they are as follows:

TRAUMATIC RESECTIONS OF THE ANKLE, ABROAD.

AUTHORITIES.	CASES.	DIED.
Deutsch. Zeit. B. V., S. 26.....	1	0
" " B. I., S. 187.....	2	2
" " B. II., S. 106.....	5	3
Stromeyer, Battle of Langensalza.....	1	0
Heyfelder, Resectionen, p. 162.....	67	6
Circular No. 6, S. G. O.....	18	6
Jaeger's Tables.....	29	1
Sir Astley Cooper.....	9	0
Josse.....	6	0
Taylor.....	5	0
Gants' Collection.....	4	1
Totals.....	147	19

Mortality, 13 per cent.

. PATHOLOGICAL RESECTIONS OF THE ANKLE, ABROAD.

AUTHORITIES.	CASES.	DIED.
Hancock's Collection of British Cases.	34	2
Heyfelder's Collection, deducting British Cases, Resectionen, p. 162.....	25	3
Archiv. klin. Chir. B. 8 und 10.....	10	3
Deutsch Zeit. B. II., S. 380, Lücke.....	3	1
Totals.....	72	9

Mortality, 12 per cent.

OPINIONS OF AUTHORS.

Hueter thinks resection of the ankle is indicated in suppurative inflammation of the joint.

Langenbeck had a "run of bad luck" with it, all his eight cases performed for caries being failures; however, he recommends it for many cases of gunshot wounds. He and the German surgeons generally favor the sub-periosteal method.

Mayer opposes partial resections, but A. Rose and Frank Hamilton favor them when circumstances demand.

Ashurst, p. 612, brings statistics to show that excision of the external malleolus has the same mortality as that of the entire ankle, viz.: twenty per cent.

Pirogoff believes resection of the ankle to be safer than amputation in compound fractures, and that the risk of conservative treatment is intermediate between the two.

Kade disapproves the operation in most cases.

Gant, p. 644, favors the operation for disease, provided the affected portions of the bones do not extend too far from the joint. In gunshot wounds of the ankle, he generally prefers excision to amputation, p. 289.

Ashurst, pp. 211 and 612, favors both traumatic and pathological excisions.

Holmes, in the first edition of his *System of Surgery*, opposed the operation, but in the second edition retracts his opinion, and cautiously favors excision.

Gross advocates it where the caries is not too extensive.

Erichsen and Drutt both oppose it.

CONCLUSIONS.

As compared with amputation of the leg in the lower third, excision of the ankle is much the safest.

The following figures show the difference:

	Mort. of Exc. of Ankle, Abroad.	Mort. of Amp. of lower 3d of Leg, Abroad.
Traumatic.....	13 per cent.	33 per cent.
Pathological.....	12 "	16 "

In the Lake States the operation has proved a little safer than abroad, viz.:

Average Mortality of all Excisions of Ankle, Abroad.....	12½ per ct.
" " " " " Lake States.....	11 "

As between excision and amputation there is only one conclusion possible. Excision is far the safest, and also preserves a useful foot for walking. It is therefore to be preferred to amputation whenever the choice is possible; that is, when the foot is not mortified, nor the parts above and below the joint too much diseased or disorganized to allow their serving a future useful purpose. It is here to be remembered that Lister's antiseptic treatment has revolutionized some of our precepts. I have, by this method, healed an ankle proved by the probe to be completely carious, though I am sure that one could not always succeed in that way. It would be well in many cases to give it a trial before proceeding to excision. In the same antiseptic way, many compound dislocations and fractures of the joint can be readily cured without operation.

On the whole the following statement probably gives pretty nearly the truth:

CASES FOR AMPUTATION.

1. Death of the foot from any cause.
2. Cancer or incurable disease of the foot, rendering its presence pernicious.
3. Caries and necrosis, so destroying the parts above and below the joint as to render it impossible to remove the

disease and have the end of the tibia rest on the foot, or to preserve periosteum enough to reproduce the bones.

4. Compound fractures effecting similar destruction of parts.

CASES FOR EXCISION.

1. All ordinary cases of caries, which resist antiseptic treatment.

2. Certain cases of talipes, and displacement from old accidents, which resist orthopedic treatment.

3. Compound fractures and dislocations which have resisted antiseptic measures, and have not destroyed the circulation in the foot.

4. Dislocations of the astragalus, and compound dislocation of the tibia forward which will not remain in position after being reduced.

CASES FOR ANTISEPTIC TREATMENT.

1. Caries in its earlier suppurative period.

2. Simple suppuration of the joint.

3. Compound fractures and dislocations which will stay reduced, which have not destroyed the circulation in the foot, nor hopelessly disorganized too much of the adjacent parts.

OPERATIONS UPON THE LARYNX AND TRACHEA.

Of these I have obtained trustworthy records of thirty-five cases, some of which are of decided interest:

TABLE XIII.
OPERATIONS ON THE LARYNX AND TRACHEA.

No. An- drew's Sur. Rec	OPERATOR.	Age.	REASON FOR OPERATION.	COMPLICA- TIONS.	OPERATION.	Cond. at opr	Time to operation.	Result.	Time to death or recovery	Practice.
	Dr. H. A. Johnson	2	Membr. group	None	Trachea, abv. thyroid gland.	Bad.	3 days	Died	1 hour	Private
	"	6	Diphtheria	None	Laryngotomy	"	4 or 5 days.	"	1 "	"
116	"	4	Membr. group	None	"	"	"	"	6 weeks	Hospital
138	E. Andrews.	1	Diphtheria	None	"	"	"	"	24 hours	Private
674	H. A. Johnson	12	Oedema glottidis.	None	"	Good	"	Recover'd	"	"
7503	E. Andrews.	2	Foreign body in trachea	None	Trachea, below thyroid.	Bad.	1 or 2 days.	"	"	"
7502	"	3	"	None	"	"	some hours	Died	"	"
7504	"	3	"	None	" in haste	Med.	"	"	1 hour	"
7505	"	7	Diphtheria.	None	" above thyroid.	Bad.	"	"	4 days	"
7506	H. A. Johnson	3	"	None	Laryngotomy	"	"	"	3 "	"
7586	E. Andrews.	40	Stricture of glottis with asphyxia.	None	Trachea, above thyroid.	"	"	Successful	"	Hospital
7589	"	1	Oedema	None	"	"	"	Recover'd	"	"
8003	"	4	Abscess at root of tongue	None	"	"	"	"	"	"
	Herrick	2	Foreign body in trachea 3 months	None	"	"	"	"	"	"
	D. Burnard	3	Diphtheria.	None	" above, thyroid.	Bad.	4 days	Died	24 hours	Private
	H. A. Johnson	3	Membr. group	None	"	"	"	"	"	"
	"	1	"	None	"	"	"	"	"	"
	H. Wardner.	1	"	None	"	"	"	"	"	"
	"	3	"	None	"	"	"	"	"	"
	"	2	"	None	"	"	"	"	"	"
	H. A. Johnson	30	Oedema of larynx.	None	" above thyroid.	"	48 hours	"	"	"
	E. Powell			None	"	"	"	"	"	"
	J. W. Frier		Foreign body in larynx.	None	Laryngo-tracheotomy.	"	16 days.	"	"	Hospital
	J. Andrews.	2	Foreign body in trachea.	None	Trachea, below thyroid.	Good	2 weeks.	Recover'd	14 days	"
	Gunn	3	Diphtheria.	None	"	"	10 days	"	28 days.	Private
	R. G. Rogue	7	Epithelioma in larynx	None	"	"	"	"	"	"
	H. A. Johnson	3	Diphtheria.	None	High trachea. Tumor re- moved twice, 2d successfull	Med.	1 year.	"	"	"
	"	10	"	None	Trachea, above thyroid.	Bad.	4 days	Died	1 hour	"
	"	60	Cancer in larynx	None	"	"	"	"	"	"
	"	5	Diphtheria.	Art. mortis	"	Med.	5 months.	Lived.	3 mos.	"
	"	6	Membr. group	None	"	Bad.	7 days	Died	few hrs.	"
	"	4	"	None	"	Fair	5 "	"	23 hours	"
	"	40	Swelling of laryngeal muc. memb.	Lic. larynx	"	"	"	Not stated.	Lived.	"

RECAPITULATION.

	CASES.	DIED.	PER CENT. MORTALITY.
Total for all causes.....	35	20	57
For memb. croup or diphtheria.....	21	17	81
For foreign bodies in trachea.....	6	2	33
For Oedema glottidis.....	4	1	25
For other causes.....	4	0	0

The diphtheritic portion of the cases, arranged by age, are as follows:

	CASES.	DIED.
Under 1 year.....	3	2
1 to 2 years.....	3	3
2 to 3 ".....	4	3
3 to 4 ".....	3	2
4 to 5 ".....	1	1
5 to 6 ".....	2	2
6 to 7 ".....	2	2
7 to 8 ".....	1	1
8 to 9 ".....	0	0
9 to 10 ".....	1	1

The case of epithelioma of the larynx was a remarkable one. The growth obstructed respiration, so that asphyxia was imminent. Prof. H. A. Johnson then performed tracheotomy. The tumor continued to grow until it encroached downward upon the lower part of the larynx; the patient still wearing the tracheotomy tube. Prof. Johnson then divided the thyroid cartilage in the middle line, and removed the growth, which had its seat just below the vocal chords. The wound healed nicely, the patient still wearing the tracheotomy tube. After a considerable period the growth returned, and Prof. Johnson repeated the thyrotomy, removed the tumor more thoroughly, and cauterized the seat of it with nitric acid. The recovery was good, and the surprising part is that after two operations of thyrotomy, the patient has a good and constantly improving use of the vocal chords in speaking. The last operation was many months ago. The tumor has not returned. Its character as an epithelioma was thoroughly demonstrated by the microscope.

(To be continued.)

HISTORY OF A CASE OF STOMATITIS MATERNA AND INTRACTABLE DIARRHŒA COMPLICATING EACH GESTATION AND LACTATION; WITH DROPSY OF THE AMNION, AND PREMATURE EXPULSION OF AN EMPHYSEMATOUS LIVING FŒTUS IN THE LAST PREGNANCY.

BY J. SCHNECK, M.D., OF MT. CARMEL, ILL.

(Read before the Union Medical Society, June 27, 1876.)

CASE: Mrs. M. S., aged 28, medium size, blonde, unusually fair skin, was confined with her first child, March 10, 1871. Soon after she discovered a sudden appearance of small blisters on the tongue and mucous lining of the mouth and cheeks; in a few hours they would discharge their contents, leaving an abraded fissured surface of a deep red color, very sensitive to the blandest articles of ingesta; even water or cold air would cause a feeling as if "red hot."

From that time to this, there has never been a time when the mouth could be said to be entirely free from this unnatural tenderness; being worse while nursing, and during the last four or five months of each succeeding pregnancy.

In a few days after the stomatitis had commenced, she was attacked with a diarrhœa, with at first semifluid stools and colicky pains with excessive borborygmus. Soon she had frequent passages consisting of mucus and half digested food, accompanied with severe griping, tenderness of abdomen, and neuralgic (probably partially hysteric) pains in different parts of the body, which were only relieved by large doses of opium.

The patient, in spite of treatment, gradually grew weaker and worse, until the end of the fifth month after confinement. On the death of her babe, Aug. 15, 1871, she commenced improving and in a few months had regained her former good health, except the tenderness of the mouth.

About Aug. 10, 1872, the woman again being pregnant, the mouth become worse, the intractable diarrhœa returned and soon assumed its former virulence; no treatment appeared of any permanent value: large doses of opium and other narcot-

ics were necessary to give temporary relief. On Dec. 15, 1872, she was delivered of a healthy child, apparently at full term. The diarrhœa, however, continued, the patient growing weaker and more emaciated.

March 8, 1873, I saw the patient for the first time, and found her very weak, unable to raise herself in bed, with a quick and weak pulse, fever during the day-time and night sweats. There was constant, burning sensation at the stomach, the bowels were swollen and tender, and when not under the influence of narcotics, excessively painful. The bowels moved from four to twelve times daily, the stools consisting mostly of bloody mucus and undigested food. The child was in ill health, very much emaciated, and nursed by its mother.

The child was ordered to be weaned, and the mother to have before each meal a powder of pepsin, bismuth subnitrate and prepared chalk, of each two grains. She was also to have regularly, elixir of iron, quinia and strychnia, and cod-liver oil. At the end of five weeks of treatment the patient had so far convalesced as to be able to perform her household duties, and soon recovered her usual health, in which she continued until her next gestation — nearly two years.

She menstruated last during the last week of October, 1875, suffered moderately from nausea and morning sickness during November and December, otherwise felt moderately well until March, 1876, when the same difficulty as in former pregnancies commenced. This time the stomatitis was not so severe as in the two previous gestations, while the enteric symptoms were worse.

She felt motion first during the first week of April. I saw her April 18, and found the mucous membrane of the mouth very red and painful, with deep fissures at the edge of the tongue; frequent dysenteric stools and great weakness. I ordered cod-liver oil three times a day, and one desert spoonful of the syrup of the hypophosphites (Churchill's) after each meal; also an emulsion of turpentine with opium and carbolic acid, a dose to be taken after each motion of the bowels.

On April 30th I found all the symptoms worse, the patient rapidly failing. The abdomen was as large as at full term.

The cod-liver oil was omitted in the treatment. I suggested the advisability of bringing on premature labor, as the only hope of saving her life.

On May 10th at my suggestion, Dr. J. J. Lescher was called in consultation. He believed the only reasonable hope of saving her life was in premature labor; but suggested a trial of powders of opium, 1 gr., and oxalate of cerium, 2 grs., three times daily in addition to the other treatment.

May 12th, I found the patient suffering from severe pains in the bowels and back, great dyspnœa, bowels not moving as frequently as before the last powders were taken. She drank much water, but passed less than the normal quantity; this had been the case for the last four weeks. The abdomen was much larger and she was unable to sit up on account of its size; at the last examination the skin being perfectly tense. The lower portion of the chest, including part of the sternum and ribs were all greatly involved in the enlargement. Percussion gave a dull sound from sternum to pubes, and from the right to the left hypocondriac region. Auscultation revealed nothing but an occasional striking sound, occasioned by the child striking against the inner surface of the uterus. There was no appearance of anasarca.

The patient positively refused to have premature labor brought on. In addition to previous treatment, diuretics and anodynes were directed.

May 16th, I was called again, and as I entered the door the membranes ruptured, and there was a great gush of water. On examination I found the child born, except the head, which was still in the vagina. When this was removed, there was another discharge of an enormous quantity of water. The placenta which was of unusually large size and very soft, soon followed. The cord was about twice the usual thickness, and very easily torn. The womb contracted well, the abdomen in due time assumed its normal size, showing that the enormous distention was occasioned by the contents of the uterus.

My attention was next directed to the child, which up to this time I had considered as being still-born, and in a state of decomposition. The skin was of a dark, venous color and

distended in every part to its utmost limit. Eyes were swollen shut; cheeks encroaching on the nose until it was scarcely recognizable; limbs apparently twice the normal size, it being scarcely possible to bend fingers, arms or legs without breaking the skin. Pressure gave a feeling as if pressing on a half-solid India rubber ball, making an indentation on the surface, it would suddenly spring back to its former shape, showing that the distention was not caused by serum. While examining the child it made three separate and distinct efforts at breathing, to the utter astonishment of all present; but respiration was not established. The mother rapidly recovered her former health, except that the tenderness of the mouth still continues.

The above case is of unusual interest for the following reasons:

1. As pointing to a common cause of the stomatitis materna and the intractable form of diarrhœa that sometimes occur during gestation and lactation. The cause of neither so far as I am aware, has ever been satisfactorily explained.

2. As adding another, to the small number of reported cases of dropsy of the amnion. The cause of this has also called forth many ingenious theories, but none so far have been satisfactory to the profession.

3. But especial interest is attached to the fact of a *live born emphysematous fœtus*. I have examined eight¹ of our most prominent authors on midwifery and in none of them have I found any reference to a similar case. Leishman, Ramsbotham and Cazeaux, all speak of a large accumulation of gas in the abdominal and thoracic cavities of the fœtus as sometimes obstructing labor. And Depaul is quoted by the last named author as having had a case where there was general emphysema involving all the cellular tissue; but in every instance they speak of it as the result of death and commencing decomposition.

¹ Schroeder, Manual of Midwifery, 1873; Churchill's (by Condie) System of Midwifery, 1851; Ramsbotham, Process of Parturition, 1842; Lee, Theory and Practice of Midwifery, 1844; Meigs, Treatise on Obstetrics, 1856; Moreau, Practice of Midwifery, 1844; Cazeaux, Theoretical and Practical Midwifery, 1868; Leishman, System of Midwifery, 1873.

That there were three separate and distinct efforts to breathe after its birth, by the foetus in this case, there cannot be a shadow of doubt, there having been three persons beside myself who witnessed it. Neither do I think that the phenomenon above referred to can be explained on the ground of the muscular irritability which sometimes continues for a short time after death, as this is known to be totally lost when decomposition commences, and before gas is evolved.

[We regret that on the question as to whether the foetus was alive at birth, the author has not told us whether its heart was beating, also that he did not puncture the skin immediately after death, and thereby establish beyond a peradventure the nature of the material distending the cellular tissue.—Eds.]

Editorial.

Efficient sanitary regulations intelligently framed and fearlessly enforced should preserve the lives and health of the citizens of a great metropolis like our own. Under existing circumstances they are exposed to preventable diseases, and sacrificed to others, whose prevalence and severity could be greatly affected by an intelligent application of the established principles of sanitary science.

The sanitary system adopted in Chicago, is manifestly incomplete, and its administration utterly inefficient.

The Health Department of the city is little more than a bureau of registration of births and deaths; the registration itself being almost valueless from its want of accuracy. Beyond this, what does it practically accomplish? The accumulation of offal in the process of decomposition, by which the soil is saturated and the atmosphere vitiated, is permitted in the streets and alley-ways, and even in front of the homes of nearly half a million of people!

Already the results of this criminal negligence are to be observed. Diphtheria in a virulent form, and scarlatina of a malignant type are more or less prevalent in several districts.

If the present condition of affairs is allowed to continue unchanged, we may expect the appearance in our midst of other equally severe types of zymotic diseases.

Should the filth accumulations of to-day be suffered to remain, and become augmented by the usual increment of the winter, the ensuing warm season will but add to the noxious emanations from these hot beds of disease germs.

If the medical profession of the city shall not exert its influence, both in the creation of a proper public sentiment, and in the vehement urging of the municipal authorities to a more satisfactory performance of their public trust, certainly it will fall far short of its duty.

Only a false and mistaken economy will permit such grave consequences as are imminent, to occur. The judicious expenditure of a moderate sum of money at the present time, in an effort looking toward the removal of the sources of disease in Chicago, will not only prevent much needless suffering, but actually save many human lives.

Hospitals.

COOK COUNTY HOSPITAL, MEDICAL DEPARTMENT.

Service of DR. LYMAN.

1. *Pleurisy with Effusion; Aspiration.*

May 12, 1876. A tall young Norwegian, aged twenty-two, took cold two weeks ago, and suffered from sharp pains in the left side. A fluttering movement of the epigastrium indicates a displacement of the heart downward and inward. There is a slight increase of elevation on the right side of the chest. He has a cough, caused by bronchitic inflammation. The left side is dull below a line level with the nipple, but when he lies down resonance returns in front, and the posterior surface becomes dull throughout. The left side of the chest is just half full of fluid. It is a question whether diuretics, cathar-

tics or sudorifics make much impression on collections of this kind. We get more effect in inflammatory diseases from alteratives and tonics. It will be best to remove the fluid without delay. Three days is long enough to wait, for as the lung is driven up it might be retained in its forced position long enough to become fixed. Deformity might then result from the collapse when the fluid should have disappeared. A hollow needle was introduced about two inches beneath the angle of the scapula, between the eighth and ninth ribs, and pushed in two and a half inches. The flow of serum began, then stopped, and did not start again until the needle was turned and the direction changed a little. Dr. L. remarked that the lung, as it unfolds on the retreating liquid, might touch the needle and excite cough. The entering of air into the expanding portions may also excite cough. If the needle should penetrate some vital organ, as the liver, the spleen, or the lung itself, no harm would follow these punctured wounds. If the effusion should have become purulent, it will be necessary to make a free incision, allow a free escape, and use an injecting fluid. It will be easy to tell whether the case is one of serous effusion or not, for on the one hand we shall have a clear history of an acute attack and the progressive distension of the sac; but if it is a case of empyema, the constitution will have been broken down. The inevitable hectic in these cases will indicate their character. Two quarts of a straw-colored liquid were obtained by the operation, showing how great the loss of strength must be from the deprivation to the blood of albumen, with which the contents of the jar were charged. The needle was withdrawn without pain or hæmorrhage. A bit of adhesive plaster was stuck on the wounded surface, and opium was ordered to allay irritation. It was remarked that the needle should be carefully disinfected by drawing carbolic acid through it. The heart now appeared near its normal position.

2. *Hemiplegia and Coma through Embolism.*

May 16. A middle aged man, admitted for acute rheumatism of the right shoulder. Yesterday, while he was perfectly conscious, the left arm began to have a rigidity. He could

answer questions, though he was unable to put out the tongue. There was loss of motion first, then partial loss of consciousness, lapsing into complete paralysis and coma. We found a loud murmur of the heart had made its advent, and we suspect that the pain complained of a few days ago was due to the rheumatic invasion. The murmur indicated a fibrinous exudation on the valves. A portion of this we suppose has been washed off and lodged in the right middle cerebral artery. The brain was not deluged, as in apoplexy, but the supply of blood was cut off. The effect was gradual; the surface was the first to feel it. Such cases are not immediately fatal. The particle of embedded matter may be small, and we may have only softening, followed by fatty degeneration. It may afterward become capsulated, as in slight apoplexy. The patient died on the 17th. Large vegetations were found on the mitral valve, and an embolus was discovered on the right side of the brain, at the bifurcation of the middle meningeal artery.

3. *Tubercular Peritonitis.*

A young Swedish machinist, injured by lifting too much, as he says. Last fall he coughed and spat blood. Since then these symptoms have ceased entirely. He is now greatly emaciated; pulse rapid; temperature $99\frac{1}{2}^{\circ}$; abdomen distended and tender. There is abundant resonance over the left lung and the lower half of the right. There is reason to believe that the first step in consumption consists of inflammation of the bronchioles in serofulous persons. The lymphatic vessels open in the terminal branches of the bronchial tubes. With new products come new processes. The lymphatic glands grow by the deposit of a new material. Their enlargement causes pressure, sets up secondary bronchitis, awakes cough. Finally the tubercular mass which has arisen, becomes crowded together, and its elements begin to die. The surrounding tissues becoming infiltrated, break down in turn, and are cast off. This is different from pneumonia, and the explanation is different from the ideas of text books for the last half century. As tubercular deposits in the lung involve not the primary tubes, not the air cells, but the lymphatics, so we may have

considerable progress in the formation of tubercle without cough. It is evident that in the case before us the continuance of the tubercular symptoms only from last fall is not sufficient to account for the patient's condition. The progress of his disease has been latent in the lungs. Some of the symptoms of consumption are secondary. Let us see as to his digestive system. The tongue is clean, but he has been troubled with vomiting. Pressure over the hypogastric region causes pain. From a spot above Poupart's ligament, clear across the abdomen, there is a hard nodular mass to be felt. The probability is that it consists of enlarged lymphatic glands. Tubercular matter has been deposited, increasing their volume and producing peritoneal inflammation. A case like this will never live long enough to have serious inroads made upon the lungs, unless by deposit of miliary matter, which causes rapid infiltration. A child may have a scrofulous inflammation of the ear; the glands behind the ear become tuberculous, and tubercular meningitis may be induced. There is therefore a striking resemblance to what takes place after inoculation of syphilis. It is important to distinguish between these different relations. Pneumonia is the least dangerous; tuberculosis is next so; amyloid degeneration is the most serious of all, destroying any and every organ in the body — three processes nearly related, yet their results far removed.

4. *Gonorrhœal Rheumatism.*

May 23. A slender young man says he had inflammatory rheumatism last summer, and was confined six weeks with a painful swelling of his ankles and knees. Ten weeks ago he contracted gonorrhœa. He has had the characteristic discharge ever since. Two weeks ago he began to suffer pain in the head, and afterward in the right hip and knee. On admission his circulation was 96; temperature 102°. He was ordered ten grains of salicylic acid every hour for two days. No relief of pain. Hereafter he will have ten grains of the iodide of potassium, in a fluid drachm of the tincture of guaiac, four times daily. We think salicylic acid has been given long

enough. Generally two or three drachms are sufficient. So much has been given, but he is not relieved.

Gonorrhœal rheumatism is a result of a species of pyæmia. The fluid of the urethra sets up a poisoning of a peculiar character. With lying in women a low grade of uterine inflammation may cause mammary abscess. Articular inflammation even may occur in such cases. In the same way here. If it were simply rheumatic we should get relief by the use of corresponding remedies. The joints are not materially swollen to sight or to feeling, but he cries out pitifully when the leg is raised. We cannot in the description very well distinguish between this and a surgical disease, or between this and rheumatism. The most we can say is that it is an exquisitely painful affection. The duration may be two or three months. He must have opium, besides the iodide of potassium. We meet patients suffering from gonorrhœal neuralgia, affecting every part of the body. They have "rheumatism all over." The joints become so stiff they cannot be moved. Ankylosis may result. A man is reported as having acquired in this way ankylosis of every joint in his body. We have seen several individuals who, strange as it may seem, have more than once had such a disease from such a cause.

5. *Chronic Intermittent Fever.*

A well developed man had his first attack of ague in Indiana, last October. He had a relapse in March. Calomel and quinine broke up the fever then. Yesterday there was another relapse. The chill was followed by a pulse of 120 and a temperature of 104° . In typhoid fever the temperature is not so high at first. There is an impoverished condition of blood, a deposit of the *débris* of the blood in the liver, spleen, kidneys and brain. The functions of the nervous system are correspondingly disturbed. Alterations of the tissues of the body in consequence of hardship or exposure brings on a renewal of the attack. When the daily mean of temperature rises above 72° , the causes become prevalent, whatever they may be. Some say germs, others vicissitudes of temperature. The latter can hardly be accepted as sufficient. The disease is

probably due to germs. In the heat of the day these are carried high; at night they fall. They enter the body through vascular walls, and poison as really as arsenic. The limit of the power of the microscope, depending on the constitution of light, enables us to define objects $\frac{1}{100000}$ of an inch apart. But this is only half way to the ultimate molecules of matter, and a particle one-tenth of $\frac{1}{100000}$ of an inch in diameter may contain a million of molecules. Such a cause might poison and alter the blood most vitally without our being able to see the process. We want to administer something powerfully oxidizing in character, to wash or cleanse the body of the remains of this disease. We should administer first a diuretic. The acetate or the citrate of potassa is useful if quinine alone has failed. But, if they are not, a course of nitric acid may relieve for years.

6. *Pneumo-hydrothorax.*

June 6. A young man, rather small, aged twenty, a teamster, with bright dark eyes, began to cough a year ago. A month later he spat blood. He has expectorated, has had shortness of breath and night sweats ever since. Now respiration is rapid without dyspnoea. There is considerable abdominal movement, and but little thoracic. The right side is resonant down to the lower edge of the ribs. The liver is either contracted or displaced. There is too much air there; but this does not tell what has happened. By auscultation an amphoric sound is obtained. This is significant. But another rarer phenomenon is there. If we shake him a sound of splashing proceeds from the chest. This proves that both air and fluid exist together in the same compartment. Probably in the beginning he had pneumonia at the apex of the right lung, resulting in caseous deposits which broke down, cough and finally a rupture of the abscess into the pleural cavity.

Examinations post-mortem.—The case terminated suddenly. The patient seemed to be as well as usual during the week. He rose very early on June 13th and went to the bath room, then he returned quietly to bed. That is the last that was seen of him alive. When the nurse called him to get up he

was dead. Both lungs were tuberculous. An old abscess of large size at the apex of the right lung, and a ragged opening at the top into the pleural cavity. The walls of the pleural sac were covered with discolored granulations. The cavity was partially filled with a dark, flocculent and rather offensive liquid. The liver was crowded down. A mass of coagulated fibrine extended out of the heart into the trunks of the larger arteries. It is probable that death occurred as a consequence of arrest of the circulation. The fault was in the failure of the heart itself. There was at first some diminution of its force, the effect of innutrition of the nerve centers. More work had to be done, but the rate was not sufficient to keep the blood from coagulating. Fibrine began to separate, increasing the difficulty. The blood failed still more to reach the brain. Finally, as a result of this vicious circle, we may say the immediate cause of death was syncope.

7. *Bright's Disease and Degeneration of the Liver.*

Dr. L. introduced a sample of urine for analysis. It is not acid. It looks very turbid and high colored. In process of warming it begins to grow transparent, and when heated it becomes clear. Its turbidity is due to the presence of earthy phosphates, kept in solution by acid phosphates. When boiled it becomes turbid again. Nitric acid only increases the turbidity, showing that it is charged with albumen. A drop of dilute sulphuric acid poured on a thin stratum of this urine on a plate causes a violet color to play over the surface—a proof that bile pigment is present.

Now observe the patient. A finely built man, aged fifty-three; admitted yesterday; sick three months; skin pale and shining; legs, thighs, scrotum and hips all pitting on pressure. Resonance on the right side extends down to the nipple, but immediately below it is lost. The abdomen is flat, yet the peritoneal cavity contains fluid. The region of the stomach is firm, presenting a solid resisting mass, with shelf-like edges extending very near to the umbilicus. Percussion produces a flat sound all over the abdomen, except the space occupied by the colon; but deep resonance may be perceived behind the

tumor. Only one thing can be the cause of this dullness — that is an enlarged liver. The urine pointed to disease of the kidney; besides, his peculiar whiteness would indicate the same thing. Simple inflammation of the kidney, some think, may be cured by $\frac{1}{32}$ of a grain of the bichloride of mercury and two grains of the iodide of potassium, three times daily, during several months. In general, put the patient to bed and keep him warm. If the house be heated by a furnace, it will be a good plan to give him a hot-air bath repeatedly, making him occupy a chair over a register enclosed in a little tent. The Turkish bath is useful. Give jalap and salts, or gamboge and colocynth. But remember that occasionally these remedies may take the patient out of the world by purging. Elaterium has its victims. In such ways, if there be no contra-indication, the skin and the bowels may be got to do the work of the kidney till the dropsy has subsided.

But how about the enlargement which we found? If this were an abscess it should give a sense of fluctuation. There is none. There should also be hectic fever and sweating. These do not exist. Cystic enlargements are generally projecting, distinctly globular and fluctuating. But there is nothing of the kind. In short, the history and the symptoms point pretty decidedly to malignant disease of the liver. It is however a good case to illustrate the uncertainties of diagnosis, for it is entirely possible that that may be amyloid degeneration of the liver and kidneys, or it may be fatty degeneration. We have simply a mass of probabilities from which to make a selection. We may therefore be prepared for differences of opinion. Different minds are affected differently by sets of symptoms. If you ask a positive opinion of what we have, then I must tell you I don't know. We shall wait to see. Examination after death, June 20, disclosed cancer of the liver.

Book Reviews.

[NOTE.—All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose Catalogue of Medical Books will be sent to any address upon request.]

CLINICAL LECTURES ON DISEASES OF THE HEART AND AORTA, by *George William Balfour, M.D., St.And. F.R.C.P. Ed.*, Physician to, and Lecturer on Clinical Medicine in the Royal Infirmary, Edinburgh. Philadelphia: Lindsay & Blakiston. 1876.

This is a work of 424 pages, relating to the diagnosis and treatment of cardiac diseases and affections of the aorta. It has the form of a series of clinical lectures; not that any such lectures were really delivered, but because the author found it more convenient to express himself in this manner.

The book is written in that positive style—*never sustained by experience*—which is so attractive to students and a class of medical men who are constantly searching for specifics in therapeutics. This style will add to its popularity with many, and the qualification of some of the more positive statements will give it the confidence of thoughtful readers.

Upon the first page we find this comforting statement for nervous and dyspeptic individuals who suppose themselves the victims of incurable disease of the heart: "Should a patient come to you complaining of palpitation, irregular action, or of his heart generally, you may at once assure him, without much fear of being wrong, that his heart is all right."

We are taught the difference between pulmonary and cardiac breathlessness, and shown how the latter may be dependent simply upon blood changes.

The character of the arterial pulse, in various forms of cardiac disease, is described; and we are told that visible venous pulsation is invariably a sign of considerable dilatation of the right side of the heart. However, we must not suppose that this dilatation is necessarily due to organic disease of the heart, for it may have no other cause than obstruction to the

flow of blood through the lungs, resulting perhaps from simple bronchitis.

The author considers superficial dullness of no importance in determining the size of the heart. He recommends that deep-seated dullness be determined from above downward, on a vertical line one inch to the left of the sternum, and that the extent of lateral dullness be ascertained on the plane of the fourth rib. We are reminded that the apex beat may vary an inch or more from its ordinary location, with changes in the position of the patient.

An accentuated, pulmonary second sound is said to be the most persistent of all the acoustic phenomena indicative of cardiac disease, and it is frequently the *only* distinctly abnormal sound to be detected. The author holds that accentuation of this sound, if unconnected with any pulmonary disease capable of producing congestion of the lungs, invariably indicates valvular lesions, and accentuation of the aortic second sound is invariably a sign of dilatation of the aorta or arteria innominata.

Regarding reduplication of the heart sounds, he thinks the first sound becomes reduplicated, because excess of blood pressure in the heart retards the closure of the tricuspid valves; and the second sound is reduplicated because excess of pressure in the aorta accelerates the occlusion of the aortic valves.

Murmurs are thought to be of little value in diagnosing disease of the heart. He says: "It is obvious that murmurs cannot of themselves be accepted as certain indications of cardiac disease, even although we can positively connect them with the lesion of a definite valve, because that lesion may be temporary in its character, and wholly unconnected with actual disease of the valve affected. To this there is but one positive exception—the so-called presystolic murmur." The latter murmur—indicative of mitral stenosis—is usually thought to be very uncommon; yet we are told that it is one of the most common of endocardial murmurs, and the one most easily detected. The presystolic—or, as the author terms it, the auriculo-systolic-murmur—is described as a rough sound capable of being represented phonetically by the symbols

Rrrb or *Voot*, a sound preceding the apex beat and carotid pulse, and usually running quite up to them; separated from the second sound of the heart by an appreciable interval, and almost invariably accompanied by a purring tremor over the mitral area. He does not enter into a discussion of the manner in which this sound is produced, but simply states his views—cites some of the objections, and refers the reader who cares to pursue the subject to an article published in the *Lancet*, May 25th, 1872, p. 714.

The causes for the irregular transmission of aortic murmurs are not well understood; therefore, we are pleased to find in this work a very plausible explanation of the matter. This explanation would lead us to believe it easy to diagnose the exact condition of the aortic valves by the quality of the murmur and its area of diffusion.

The quality of an endocardial murmur is generally thought to be the least in importance of its elements; but we are told that this element alone is often sufficient to establish the diagnosis.

Regarding aortic diastolic murmurs, we find the following interesting summary:

“A diastolic murmur at or below the level of the aortic valves, chiefly audible in the line of the sternum, is significant of aortic incompetence. If this diastolic murmur be inaudible in the carotid arteries, it is invariably accompanied by a systolic murmur, having its maximum intensity at the aortic valves, or in the so-called aortic area; and this indicates comparatively trifling incompetence, with considerable obstruction at the aortic orifice, most probably from calcified semilunar valves. If this diastolic murmur be distinctly audible in the carotid arteries, it is invariably preceded by a loud systolic murmur in them, the systolic portion of the murmur being not always very audible in the aortic or in any part of the cardiac area; and this indicates very considerable incompetence, with comparatively trifling obstruction.”

The first effect of aortic regurgitation is to overload the left ventricle, a condition which gives rise to various distressing symptoms—pain, palpitation, etc. We are told that to over-

come this condition the left ventricle dilates, so as to make room for the increased amount of blood; but as dilatation would only relieve the heart temporarily, the ventricular walls become hypertrophied.

Many writers believe that hypertrophy may pass beyond the degree sufficient to overcome the obstruction to the circulation, and thus become an element of danger. We believe the author right in thinking this state of matters extremely rare, and in even doubting its possibility. He thinks the prognosis more unfavorable in aortic incompetence than in a similar condition of the mitral valves, and that in the former, sudden death is more frequent, so "That the probability of life is very greatly in favor of mitral lesions."

In the treatment of aortic incompetence reliance is placed principally upon Digitalis, in doses of m. xv. to ʒ ss. of the tincture, every four hours. Smaller doses are sometimes useful; but these larger doses are usually needed, and they are considered perfectly safe if watched. When giving these large doses, we should at once suspend the use of the medicine if the quantity of urine diminishes, or at least as soon as the pulse begins to falter or nausea supervenes; but the same precaution is not necessary with small doses, and we need not fear evil effects from the large doses unless these symptoms occur.

For the neuralgic pain which so often accompanies this disease, arsenic is recommended. "In all forms of cardiac angina arsenic is almost a specific, and in this form it certainly acts with great benefit."

We look with suspicion upon medicines which are recommended as "almost specifics;" yet there can be no harm in trying the arsenic, for it is thought to strengthen the cardiac walls.

"A systolic apex murmur is by no means always a certain proof of any positive derangement of the cardiac mechanism." "Even though regurgitation be unequivocally proved to exist, along with a systolic apex bruit, mitral disease or deformity is not therefore a necessary consequent, because both do occur in a not inconsiderable proportion of cases in which the mitral

valve is nevertheless perfectly healthy." To many this statement may appear singular, yet we think it will be found correct; for there are numerous cases in which the heart, weakened by disease, dilated, so that the auriculo-ventricular openings become too large to be closed by the valves. With regard to this the author says that cardiac dilatation is invariably revealed by mitral regurgitation, which, in more severe forms, is associated with tricuspid regurgitation also; and this dilatation may occur independently of valvular disease, giving rise to curable mitral or tricuspid regurgitation.

In curable mitral regurgitation, it is common to obtain a murmur over the left auricle, synchronous with the systole of the ventricles. This murmur is usually most distinct about an inch and a half to the left of the pulmonary area. It can generally be heard over the aorta and carotids (when it is usually termed an anæmic murmur); in some cases it may also be heard at the apex.

Among the diseases which may give rise to curable mitral regurgitation, the author enumerates typhus, enteric and relapsing fevers; erysipelas, chorea, and some forms of anæmia; and he thinks it probable many others may have a similar effect. Curable mitral regurgitation is to be treated by general tonics, digitalis and arsenic.

The frequent disappearance of endocardial murmurs in organic disease, as well as their occurrence where no actual cardiac disease exists, renders it important for us to be able to diagnose valvular lesions independently of murmurs; and, fortunately, this is not very difficult, as the author has shown in a case illustrative of the manner in which we are to proceed by the process of exclusion.

One chapter is devoted to the subject of irregularities of the pulse, and arterial and cardiac palpitation; and another, of special interest, to the secondary results of cardiac disease.

In an article on angina pectoris, chloroform is said to be the best remedy during the attack; but æther, nitrite of amyl and morphia are also recommended. In this connection we find the following statement regarding the use of chloroform:

"I know of no diseased condition which should deter us

from its cautious employment where that is otherwise indicated, as I hold it imperatively to be in cases of angina pectoris; for what we desire to do in such cases can only be done by means of chloroform."

In this the author refers to the speedy relief of pain. He recommends giving the patient a small chloroform smelling-bottle, the fluid being poured over a sponge, so that it cannot spill. This the patient holds to the nose, breathing deeply as possible until relief is obtained. When the narcotic influence is obtained the bottle drops from the patient's hand, and "with it rolls away all risk of an overdose."

The author doubts the possibility of diagnosing a fatty heart, though he says we may have strong reasons for suspecting it, and our suspicions may often be correct.

The last chapter is devoted to the treatment of internal aneurism by iodide of potassium. Referring to other plans of treatment, the author says that all, excepting Mr. Tufnell's plan of perfect rest, are attended with much danger. He thinks the treatment by iodide of potassium perfectly safe, and sure to afford relief. "It relieves the pain and all the other symptoms of aneurism more rapidly and more effectually than any other treatment, apart even from the powerful agency of the recumbent posture." He gives a score or more of histories in substantiation of this statement, and finally adds his views of the proper manner of administering the medicine, of its mode of action, and of the chances for life in cases treated by it; and we are told that there is absolutely no risk from its use. "It is almost absolutely certain to give relief and prolong life," and "No other form of treatment holds out anything like an equal prospect of relief, if not of cure."

The dose may vary in different cases from gr. v. to gr. xxx., three times a day. The latter quantity is often necessary before good results ensue, and it is apparently as well tolerated in most cases as the smaller dose, while in other cases it seems even better borne. We are advised to commence the treatment with potass. iod. 3 ss., three times a day, conjoined with a full dose of opium or chloral at night to allay irritation and secure rest. If unpleasant results follow, the remedy should

be suspended for a day or two, and then given again in large doses. In a few cases large doses cannot be employed; but it is believed that persons who experience poisonous effects from small quantities of the medicine are likely to obtain remedial effects from proportionately smaller doses of the same. Two cases are mentioned in which the remedy could not be tolerated.

The author thinks it important to saturate the system speedily with the medicine, and to maintain this condition, perhaps with slight intermissions, for several months, or at least until the symptoms are relieved. He thinks the good effects of the remedy depend, *first*, upon its sedative action on the heart, and *second*, upon a peculiar influence upon the arterial system, which not only causes contraction of the aneurismal sac (as it would of a simply dilated artery), but also induces thickening of its walls; and he does not believe the relief due to increased coagulability of the blood.

Perfect rest is an important — almost essential — element in the treatment; but there seems to be no need of restricting the diet, though fluids should be taken sparingly. Alcoholics are always injurious in these cases, excepting for temporary stimulation.

A perfect cure can be expected only in sacculated aneurisms and in those of a more or less traumatic character occurring in comparatively young individuals; though great relief and considerable prolongation of life may be confidently looked for in almost every instance where this plan of treatment is followed.

There are a few typographical errors in the book, though we notice only one of importance. On the thirty-second page the normal positions of the aortic and pulmonary sounds are said to be at "the third right and the second left costal cartilages." This might confuse the student who was not aware that these positions are at the *second* right and *third* left, etc.

We notice two or three grammatical errors, and several perplexing sentences; yet, as a whole, the work reflects credit upon its author, who has treated his subject thoroughly, and added to its standard literature some original thoughts which will render the work a valuable acquisition to the profession.

A PRACTICAL TREATISE ON THE DISEASES, INJURIES AND MALFORMATIONS OF THE URINARY BLADDER, THE PROSTATE GLAND, AND THE URETHRA, by *Samuel D. Gross, M.D., LL.D., D.C.L.*, Professor of Surgery in the Jefferson Medical College of Philadelphia. Third edition — revised and edited by Samuel W. Gross, A.M., M.D., Surgeon to the Philadelphia Hospital. Illustrated by one hundred and seventy engravings. Philadelphia: Henry C. Lea. 1876. pp. 574.

“What shall be done unto the man whom the king delighteth to honor?” What but to say that his work is worthy of the hand that wrought it. The elder Gross has now well nigh reached the climax of the grandest success possible for an American surgeon. As an instructor, practitioner, *clinicien*, operator, biographer and author of scientific works, his eminence is to be measured by the extent of his reputation. Decorated with the doctorate of Oxford, and crowned with the highest of honors by the late International Medical Congress at Philadelphia, our author, it would seem, can hereafter add but little to the rounded completeness of his splendid professional career.

All of Dr. Gross' works are valuable, and many readers will be pleased to accord to a third edition of the present treatise the reception given to its predecessor, which has now been out of print for several years. It differs from the latter in that the chapter on the anatomy of the urinary organs has been omitted, as well as the appendix relative to the prevalence of stone in the bladder and calculus disorders in the United States. Dr. C. H. Martin, of Mobile, Alabama, has contributed for this edition, the statistics of lithotomy as performed by American surgeons, and several new engravings have been supplied by Dr. Barnes, the Surgeon General of the United States Army.

Dr. S. W. Gross, the son of the distinguished author, has been entrusted with the general work of revision, and the preface states that he has brought the work “fully up to the existing state of our knowledge.” After a careful examination of the results of his efforts, we are prepared to endorse

this statement as one which the candid reader cannot fail to accept.

Since the chapters on Tumors of the Bladder and of the Prostate Gland, are entirely written by the son, we naturally turn to them in the expectation of noting the contrast between these and other portions of the work. And yet the younger hand has produced effects which are well nigh undistinguishable in style, practical value and suggestive, critical analysis, from those to which the medical public has been long accustomed.

In alluding, however, to the histological structure of the hypertrophied prostate, it is here stated that the anomalous condition is due to hyperplasia of the muscular and fibrous elements at the expense of the glandular structures "which disappear in part or entirely." How could there possibly be, after this partial or complete disappearance of the glandular structures, that "free discharge of prostatic fluid," which is enumerated among the symptoms of advanced and severe cases? It is more than probable that the histological status of the prostate, when hypertrophied, is just the reverse of that described. The fibrous elements are rarely affected, while the proliferation of muscular and glandular elements is in active progression. Iverson declares that this hypertrophy is due to "a myomatous, or myoadenomatous hyperplasia," while, according to Rindfleisch, there is "a fibro-muscular overgrowth of the peritubular stroma of single segments of the gland, with a coincident *elongation* and *multiplication* of the tubuli themselves."

There is one caution which the professional reader should observe in the consideration of this chapter, and that is not to experiment too fearlessly with the plan of treatment recommended by Professor Heine of Innsbruck. This method consists in injecting the gland through the anterior wall of the rectum, with solutions of iodine, by the aid of a Pravaz syringe. Heine's solution is composed of two drachms of the iodide of potassium, two ounces of tincture of iodine and *two* ounces of water (not *six* as stated in the text). The younger author is of opinion that "this plan of treatment deserves

more extended trial," while he admits that there is risk of supuration. Our advice on this point is that lately proffered by the *London Punch* to young men contemplating matrimony, "Don't!"

Already Prof. Dittel of the General Hospital at Vienna—a man of unsurpassed experience in diseases of the prostate gland—has had a fatal case resulting from two injections merely, each of four drops of Heine's solution. When last heard from, Prof. Dittel did not propose to experiment with it again, as he had combatted without success, in this particular case, peri-prostatitis, peri-urethritis, peri-urethritic abscess, peri-proctitis, cystitis, pyelitis and nephritis!

Of the work as a whole, we need but say that it is fully equal in value to the other treatises by its eminent author, in order to pronounce its highest encomium.

BOOKS AND PAMPHLETS RECEIVED.

The Anatomy of the Head, with six Lithographic Plates, representing frozen sections of the head. By Thos. Dwight, M.D., etc. 1876.

Ziemssen's Cyclopædia of Practical Medicine. Volume VI. Diseases of the Circulatory System.

Observations on the Diseases of the Rectum. By T. B. Curling, F.R.S., etc. Fourth edition, revised and enlarged. 1876.

Chemia Coartata; or the Key to Modern Chemistry. By A. H. Kollmyer, A.M., M.D., etc. 1876.

A Treatise on the Theory and Practice of Medicine. By Jno. Syer Bristowe, M.D., etc. Edited with notes by J. H. Hutchinson, M.D., etc. 1876.

Public Libraries in the United States of America, their history, condition, and management. Special report, Department of the Interior, Bureau of Education. Part I.

Epitome of Skin Diseases, with formulæ. For Students and Practitioners. By Tilbury Fox, M.D., F.R.C.P., etc., and T. C. Fox, B.A., M.R.C.S. Henry C. Lea. 1876.

- Principles of Human Physiology. By Wm. B. Carpenter, M.D., etc. Edited by Henry Power, M.B., etc. A new American edition, from the eighth revised and enlarged English edition, with notes and additions. By Francis G. Smith, M.D., etc. Henry C. Lea. 1876.
- Transactions of the Texas State Medical Association. Eighth Annual Session, 1876.
- Salicylic Acid; the experience of Maine Physicians in its use. By F. H. Gerrish, M.D. 1876.
- The Hypertrophied Prostate. By R. F. Weir, M.D., etc. Being No. VIII., of Vol. II., of "American Clinical Lectures."
- Life: What do we know about it? An Essay read before the Chicago Literary Club, May, 1876. By H. A. Johnson, M.D.
- The Treatment of Antelexions of the Uterus. By Ely Van De Warker, M.D. 1876.
- Case of Large Cerebral Tumor, without Optic Neuritis, and with left Hemiplegia and Imperception. By J. Hughlings Jackson, M.D., F.R.C.P.
- A Case of Double Optic Neuritis, without Cerebral Tumor. By J. Hughlings Jackson, M.D., F.R.C.P.
- Points in the Surgery of Childhood. By J. H. Pooley, M.D., etc. Being No. IX., of Vol. II., of "A Series of American Clinical Lectures."
- Hygeia, a City of Health. A Presidential Address, delivered before the Health Department of the Social Science Association, Oct. 1875. By B. W. Richardson, M.D., F.R.S. 1876.
- Johns Hopkins Hospital. Reports and Papers relating to Construction and Organization. No. 2, with 14 Plates. By Jno. S. Billings, M.D. The Plans and Plates by J. R. Niernsée, Architect.
- Transactions of the Medical Society of the State of Pennsylvania, at its 27th Annual Session, held at Philadelphia, May 31, and June 1, 1876. Vol. XI., Part I.
- Transactions of the Medical Society of the State of California, during the years 1875-6.
- Specialists and Specialties in Medicine. Address. By H. M. Henry, M.A., M.D., etc.
- A Lecture on Specialism in Medicine. By E. D. Forée, M.D.

Vaginal Ovariectomy. By Clifton E. Wing, M.D.

The Operation for Stone as observed in some of the London Hospitals, together with a report of cases from private practice. By A. Van Derveer, M.D., etc.

The following exchanges were received during the year :

Allgemeine Medizin. Centralzeitung.

American Journal of Insanity.

American Journal of Medical Sciences.

American Journal of Microscopy.

American Journal of Obstetrics.

American Journal of Pharmacy.

American Medical Weekly.

American Practitioner.

American Psychological Journal.

Anales de Ciencias Médicas, Madrid.

Anales de la Asociacion, Larrey, Mex.

Annales de Dermatologie et de Syphilis.

Annali Clinici della Ospedale Incurabili.

Archiv der Heilkunde.

Archives Générales de Médecine.

Archives of Clinical Surgery.

Archives of Electrology.

Archives of Dermatology.

Archives of Science.

Atlanta Medical and Surgical Journal.

Boston Journal of Chemistry.

Boston Medical and Surgical Journal.

Braithwaite's Retrospect.

Buffalo Medical and Surgical Journal.

Canada Lancet.

Canada Medical Journal.

Canada Medical and Surgical Journal. .

Canadian Journal of Medical Science.

Centralblatt fuer Chirurgie.

Charleston Medical and Surgical Journal.

Chicago Journal of Nervous Diseases.

Cincinnati Lancet and Observer.
 Detroit Review of Medicine and Pharmacy.
 Deutsche Mediz. Wochenschrift.
 Edinburgh Medical and Surgical Journal.
 France Médicale.
 Galveston Medical Journal.
 Gazette Médicale.
 Gazette Obstétricale et Gynécologique.
 Gazzetta Medica Italiana, Lombardia.
 Gazzetta Medica Delle Calabrie.
 Giornale della R. Accademia di Medicina.
 Giornale Veneto di Scienze Medie.
 Indiana Journal of Medicine.
 Journal de la Physiologie.
 Journal de Méd. et de Chir. Pratiques.
 Journal of the British Association.
 London Lancet.
 London Medical Times and Gazette.
 Louisville Medical News.
 L'Union Médicale.
 L'Union Médicale du Canada.
 Lyon Médical.
 Melbourne Medical Record.
 Memorabilien.
 Nashville Journal of Medicine and Surgery.
 New Orleans Medical and Surgical Journal.
 New Remedies.
 New York Medical Journal.
 New York Medical Record.
 Obstetrical Journal.
 Ohio Medical Recorder.
 Ohio Medical and Surgical Journal.
 Oregon Medical Journal.
 Oregon Medical and Surgical Reporter.
 Peninsular Journal of Medicine.
 Pharmacist.
 Philadelphia Medical and Surgical Reporter.
 Philadelphia Medical Times.

Polytechnic Review.
 Progrès Médical.
 Recueil d'Ophthalmologie.
 Revista Medico-Quirurgica, Buenos Ayres.
 Richmond Medical Journal.
 Sanitarian.
 Savannah Journal of Medicine.
 Southern Medical Record.
 St. Louis Clinical Record.
 St. Louis Medical and Surgical Journal.
 Student's Journal and Hospital Gazette.
 The Clinic.
 The Doctor.
 The Practitioner, London.
 The Western Lancet.
 The West Virginia Medical Student.
 Vierteljahresschrift fuer Dermatologie und Syphil.
 Virginia Clinical Record.
 Wiener Medizin. Chirurgisches Centralblatt.
 Wiener Medizin. Wochenschrift.

Summary of Progress in the Medical Sciences.

I. THERAPEUTICS.

1. *On the Methods of Elimination and on the Elective Action of Quinine.*
ALBERTONI AND CIOTTO. (*Phil. Med. Times*, Sept. 2, 1876.)

Under this title Drs. A. and C. contribute the details of certain experiments made by themselves to the *Bull. Gén. de Thérap.*, No. 8 and 9, 1876. They show—

1. That the presence of quinine in the bile may be demonstrated in from two to five hours after its introduction into the stomach.

2. The elimination of quinine by this path is quite active, since it is found only two hours after ingestion, and after the ingestion of sixty centigrammes (nine grains) only. It is found also that in the dog it produces in twenty-four hours an average secretion of four hundred grammes of bile.

3. Though quinine may not be found in the bile sometimes until two and a half hours after ingestion by the mouth, this is not against the fact that its proper route for elimination is through the hepatic secretion, since, as is known, this is much less rapid than elimination by the urine.

To MM. Albertoni and Ciotto the positive result that the biliary secretion contains quinine, administered by the mouth, appears important. The common mode of entrance of quinine, as of almost all medicines, is by the digestive tube. In the stomach its absorption is favored by the acids present, particularly by the hydrochloric acid, while in the intestine, on the contrary, this is rendered less easy by the alkalinity of the enteric and pancreatic secretions, and still less by the biliary acids which form insoluble compounds with quinine, though these last are soluble in excess of acid. Thus the absorption of quinine in the intestine only takes place sparingly under physiological conditions. Once entered by gastro enteric absorption into the portal circulation, quinine finds a natural anatomico-physiological route for elimination in the biliary secretion. This fact the experiments of Messrs. A. and C. positively demonstrated.

The presence of quinine in the biliary secretion serves to establish the important fact of its electivity of action, since it shows how this alkaloid places itself in intimate contact with the hepatic cells, constituting the functioning element of the liver, of which the bile is the complex product of secretory elaboration. Quinine, therefore, introduced by alimentary passages, appears to stop by preference in the liver and the spleen.

As regards the question whether quinine introduced into the circulation by other routes than by the portal system, is eliminated by the bile or by the urine alone, Messrs. Albertoni and Ciotto find that, hypodermically injected, quinine is eliminated by the urine—an important fact in practice, for it is thus useless to administer the remedy by this method if we expect to affect the liver and spleen. Quinine taken by the mouth is in part eliminated directly by the portal circulation without passing into the general venous system. As regards the length of time during which quinine remains in the organism, it has been found in the urine sixty-eight hours after ingestion. Finally, quinine was always found by MM. A. and C. in the spleen; nearly always in the liver, viscera in which it remains for the longest time. In the heart, quinine is found in larger quantity when introduced hypodermically than when taken by the mouth. In the brain it appears very quickly, but in smaller quantity than in the other viscera mentioned.

J. S. K.

2. *Vomiting in Pregnancy cured by Hyoscyamia.* PIROIS. (*Phila. Med. Times*, Sept. 2, 1876.)

Dr. P. reports (*Med. Press and Circ.*, May 19, 1876,) two cases of this. After trying, unsuccessfully, all the usual means, it occurred to him to administer a teaspoonful every hour of a mixture containing five milligrammes of hyoscyamia in one hundred and twenty-five grammes of fluid. The next day the vomiting ceased, did not recur, and the patient went on favorably to the natural term of her pregnancy. A second case of the same kind was cured by the same remedy.

J. S. K.

3. *Bisulphide of Carbon in the treatment of Cancer of the Stomach.* WHITTAKER. (*Clinic.*, Aug. 12, 1876.)

Dr. W. reports two cases of undoubted cancer of the stomach much

benefitted by the drug. Accepting the view that cancer is a dyscrasia, like tuberculosis, the doctor attributes the benefits to the solvent powers of the drug, and the relief of pain to its anæsthetic properties.

"The bisulphide of carbon, discovered by Lampadius, is a transparent, colorless, very volatile liquid, of great refractive and dispersive power, of a pungent, somewhat aromatic taste, and a peculiar odor, which when pure slightly resembles that of chloroform. Its vapor explodes when mixed with air, so that great care must be taken not to drop it near a light. Carbon bisulphide is miscible in all proportions with absolute alcohol, ether, chloroform, benzol, essential and fatty oils. It dissolves readily and freely among other substances, sulphur, phosphorus, bromine, iodine, iodoform, camphor, gutta percha, resins, wax, paraffine, stearine, chloral hydrate, and those alkaloids which are soluble in ether and alcohol. When pure, its odor should not be fetid nor repulsive; it should not cause a dark precipitate in a solution of plumbic acetate, nor change the color of moist litmus paper. Its specific gravity is 1.27 at 15° C."

The doctor administered the drug in two to four drop doses, three times daily, in a teaspoonful of alcohol or almond oil. J. S. K.

4. *New Use of Quinine.* (*The Doctor*, September, 1876.)

The *Clinic* quotes from the *South. Med. Record* the report of a new use of quinine, founded upon its well-known influence on the white corpuscles, and therefore upon suppuration. In the first case six grains of quinine, dissolved in two-thirds of an ounce of water, was injected into the cavity of a suppurating pleura, and the discharge of pus rapidly diminished. An ointment of quinine (10 gr. to 3 j.) was applied to an ulcer on the leg, of two years standing, and associated with initial heart disease. In two or three days suppuration diminished, then healthy granulations appeared, and the ulcer was rapidly healed. The third experiment was on a mammary abscess, treated by the injection of quinine (grs. 10 to 3 j. of water).

J. S. K.

5. *Powder to prevent Pitting after Variola.* SENNABARIA. (*The Doctor*, September, 1876.)

Dr. S., of Ragusa, having successfully treated several cases of eczema and acne with a powder composed of four parts of flour of sulphur and one part of red precipitate (*Medical Record*, New York), was induced to try the same in variola. He painted the pustules first with glycerine at the period of suppuration, then dusted the powder over them. A crust forms which eventually falls off, and leaves the skin exempt from cicatrices.

J. S. K.

6. *A New Adhesive Plaster.* (*Med. and Surg. Reporter.*)

Mix twenty parts mucilage and one part of glycerine. Spread three or four layers on linen—allow to dry. It may be kept more than a year without deterioration, and is much cleaner and cheaper than diachylon.

J. S. K.

7. *Salicin and Salicylic Acid in Rheumatism.* MADAGAN. (*Brit. Med. Jour. Cin. Lancet and Observer*, September, 1876.)

Dr. M. compares the merits of these two remedies. That each exercises a marvelous influence in cutting short an attack of acute rheumatism, there can be no doubt. I have used salicin or salicylic acid in every case of acute rheumatism which has come under my care since November, 1874 (a year and a half), and invariably with the same result—a rapid cure of the disease. Seeing a patient suffering from acute rheumatism, I have no hesitation in assuring him that within forty-eight hours, possibly within twenty-four, he will be free from pain.

The chief objection to salicylic acid is its tendency to produce irritation of the throat and stomach. I may have been unfortunate in my experience, but in every case in which I have given it this irritation has been complained of. All writers on this subject agree in referring to this irritation as one of its unpleasant effects. Salicylate of soda seems to give rise to the same disagreeable symptom. Salicin, on the other hand, never gives rise to any unpleasant effects. Salicin is a pleasant bitter, and is best given mixed with a little water, flavored with syrup of orange if desired. In adequate doses, say fifteen grains every two hours, it cuts short an attack of rheumatic fever, without producing disagreeable effects. It should be continued in smaller doses during the first fortnight of convalescence.

J. S. K.

8. *Quinine Bromohydrate.* GUBLER. (*Jour. de Thèr.; Detroit Review*.)

From a study of this drug G. concludes:

1. The bromohydrate of quinine (bromide of quinine) corresponding to the sulphate of the same base, is more soluble and contains more of the alkaloid than the latter.

2. It possesses the physiological properties of the salts of quinine in general, and probably also the therapeutic virtues of its officinal congener.

3. The action of the bromohydrate of quinine seems, however, to differ from that of the sulphate, not only in the slight degree of cinchonism produced by it, but also by a marked tendency to nervous sedation and hypnotism.

4. The combination of these qualities especially adapts it to the treatment of the congestive and febrile affections which attack the nervous system, neuralgias due to neuritis, irritative neuroses, cerebral hyperæmias etc., in the treatment of which it has afforded excellent results.

5. The bromohydrate of quinine was remarkably efficacious in a case of intractable vomiting. It has proved of great service in a number of affections ordinarily amenable to the action of the sulphate of quinine, visceral or articular congestions—whether of diathetic origin or not—rheumatic or gouty symptomatic fevers, or fevers *a frigore*, etc.

6. The remedy has been given in doses of from six to fifteen grains a day in divided doses of three grains at a time, either in the form of pills or by hypodermic injection.

J. S. K.

9. *Chloral Plaster.* (*Lancet.*)

For neuralgia, rheumatic pains, etc., use the ordinary emplastrum rob-rans,* and powder it with the chloral, apply the plaster to the affected part and leave it from twenty-four to forty-eight hours. When taken off the skin will be found studded with vesicles. These are to be pricked with a pin, followed by a dressing with simple ointment. The pain vanishes long before the vesicles are dried up.

10. *Salicylic Acid for the Profuse Perspiration of the Feet.* C. KUESTER. (*Deutsche Zeitschr. f. pract. Med.*; Centralztg No. 82, 1876.)

Dr. K. thinks the influence of the salicylic acid on the above disorder is equalled only by its wonderful effect in articular rheumatism. He uses the following powder: $\mathcal{R}$ Acid. Salicyl. $\mathfrak{z}$ ij; Talc. Praep. $\mathfrak{z}$ ss; Amyl. $\mathfrak{z}$ iiss; Sapon. $\mathfrak{z}$ j. After the feet have been thoroughly washed and dried the powder is dusted over them and between the toes, and some of it is put in the stockings. In all cases so treated, within the past year, the cure was a permanent one. After two or three applications the bad odor disappeared; the secretion of sweat was considerably diminished in quantity, and the epidermis hitherto continuously moistened and macerated by the perspiration, became dry and could be removed in large shreds, under which was developed a new skin of an entirely normal appearance. If this treatment was discontinued after a few months, the excretion of sweat remained reduced in quantity *without being entirely suppressed*.

In a correspondence with the *Zeitschrift*, Dr. Page speaks very highly of the gratifying success he has had by treating the profuse perspiration of the feet with the following powder, viz.: $\mathcal{R}$ Acid. Salicyl. gr. x; Acid. Tannic. gr. xv; Talc. Praepar. and Pulv. Irid. Florent. aa $\mathfrak{z}$ ss. M. The daily application of this powder between and under the toes and in the stockings or socks stopped the maceration of the skin, and foetid odor attending it, and reduced the excretion of sweat to the normal standard.

11. *Sulphate of Cinchonidia.* BATLEY. (*Atlantic Med. and Surg. Jour.*, Oct., 1876.)

Dr. B., during the last five months, has largely used the above salt as a substitute for quinia sulphate. He finds it has the same antiperiodic and antipyretic properties of quinia sulphate, seldom produces tinnitus aurium, but is more inclined to nauseate a delicate stomach. For country physicians who furnish their own medicines it is decidedly cheaper than quinine.

A good way of administration to children is to make an acidulated solution of the salt, then precipitate the cinchonidia with ammonia. And administer the washed and dried precipitate with equal parts of liquorice powder. Owing to its insolubility it is almost tasteless. J. S. K.

12. *Bromohydric Acid.* FOTHERGILL. (*British Med. Journal.*)

Dr. F. obtains the acid by dissolving ten ounces, six drachms, twenty-

* Emp. oxidi ferri rubri. Strengthening Plaster.

eight grains of potassium bromide in four pints of water, and adding thirteen ounces, one drachm, thirty-seven grains of tartaric acid. The bitartrate of potash is precipitated and the hydrobromic acid remains in a clear, bright, almost colorless fluid, possessing an acid taste and the ordinary acid properties as well as the peculiar properties of potassium bromide, as compared with any other salt of potash. It prevents the headache following a dose of quinine, of which salt it is an excellent solvent. It is peculiarly useful in hysterical conditions, associated with ovarian excitement, the vomiting of pregnancy, and all reflex excitements. With quinine it fulfills the same indications as bromide of potassium in such diseases as whooping cough, and excitement from nervous exhaustion. With chloroform and syrup of squills, it is a palatable and efficient cough mixture. Full dose, prepared as above, one drachm.—*Med. and Surg. Reporter*, Oct. 14, 1876. J. S. K.

13. *Oxygen Gas.* HEARD. (*Atlanta Med. and Surg. Journal*, Oct., 1876.)

Dr. H. advocates inhalations of the gas in incipient phthisis, and reports five cases in endorsement. From a review of them it appears that a daily inhalation of four gallons of the the gas removed muco-purulent expectoration and night sweats, improved digestion and increased weight. A brief continuance of treatment cured the cases reported. J. S. K.

14. *Atropia as an Antidote to Hydrocyanic Acid.* JACKSON. (*Druggists' Circular*, Jan., 1876.)

In experimenting on dogs, Dr. J. says: Sulphate of atropia, in doses of one-fourth of a grain to one grain, injected under the skin, gave prompt relief in every case, even when large doses of the acid had been given. When the two poisons are administered at the same time none of the effects of prussic acid are developed; but if as much as a grain of sulphate of atropia be injected, all the symptoms of atropia poisoning are observed. In some instances the antidote was withheld until the animal would fall down, and the respirations would be as few as six per minute, the dog being unconscious, then one-fourth grain of the antidote would relieve him immediately. J. S. K.

II. PRACTICAL MEDICINE.

1. *Rheumatism Treated with Salicylate of Soda.* PROF. A. CLARKE. (*The Med. Record*, Oct. 14, 1876.)

Prof. C. treated eleven cases of acute rheumatism—all that occurred in his ward of Bellevue from April 1 to June 1—with this drug. In nine of the cases there was early improvement following the use of the medicine. In two cases the amelioration was more gradual. The influence of the medicine in "lowering the fever heat and diminishing the excited pulse were as marked as its power to relieve pain."

The formula used in all the cases is as follows:

R	Acid salicylic	3 iij
	Sodæ bicarbonat.....	3 ij
	Glycerine. } aa.....	3 ij
	Aq. }	

M. Sig. Tablespoonful every two hours for the first day, and afterward the same dose six times a day.

No unpleasant effect of any kind was noticed after the administration of the medicine.

2. *A Case of Idiopathic Glossitis.* WINGATE. (*Boston M. and S. Jour.*, Sept. 7, 1876.)

The patient was a robust Irish girl, twenty years old. The inflammation seemed causeless. The tongue became enormously swollen, hard and covered with a yellow coating; pain was caused on attempting to protrude it; saliva flowed constantly from the mouth and to speak intelligibly was impossible. She had a moderate fever (103.2° F.) and a pulse of 130. There was nausea and vomiting at first; there was constipation, and, later great weakness.

The invasion of the disorder was gradual; it remained at a high point of severity for three days and slowly subsided. As improvement became established the coating disappeared from the tongue, leaving a dark red surface.

3. *The Cause of Chorea.* BAKER. (*Detroit Review*, Nov., 1876.)

Dr. B. first quotes from Prof. Stevens, of Albany, who holds that chorea is due to an over taxing of the powers of accommodation of the eyes; an over tiring, and, hence, exhaustion of the ciliary muscle in the adjustment of the focus of the eyes for different distances.

In hypermetropia, as objects approach the eyes, the function of accommodation is more severely taxed than in normal eyes. Normal eyes are always at rest when accommodated for distance; hypermetropic eyes are never at rest except when closed.

Effort at accommodation and at convergence are simultaneous and proportioned to each other. "Normal eyes accommodated for twelve inches are also converged for twelve inches." "In hypermetropia the balance is lost. Accommodation for twelve inches requires an exertion that in the normal eye would accommodate for—say six inches. The eyes would then be converged for six inches. So, there would be accommodation for a foot and convergence for only half that distance. Confusion of nervous and muscular action results.

"Young children have their eyes almost always accommodated for near objects." In these early years the ciliary muscle is kept in a state of extreme tension constantly. When there happens to be hypermetropia there is a conflict constantly between the muscles of accommodation and of convergence, unless there is a compromise by which one eye "agrees to a constant squint." The constant fatigue and irritation from the conflict referred to, occurring in sensitive children, often at a time when they are

over taxed at school, is such as strongly to predispose to—even to cause chorea, as Dr. S. believes.

Dr. B. believes, with Dr. S., that strain of the ciliary muscle may cause chorea, but that long continued muscular strain of any sort is competent to lead to the disorder, as well as that of the muscle referred to. Over exertion and tiring of any muscle easily lead to tremors. A sudden fright or severe exertion may make the tremors persistent, and we have chorea. Dr. B. quotes a number of cases to substantiate his position.

4. *Maternal Impressions.* WADDEL. (*Detroit Review*, Nov., 1876.)

After a long and exhaustive examination of opinions and authorities as to the anatomical and physiological relations of the mother to the embryo, as to the seeming proof that the mother's mind has power to change the conformation of the fœtus in utero, and to cause deformity: and after considering such evidence in the light of modern embryology and pathological anatomy, Dr. W. ably sums up his conclusions substantially as follows:

1. During embryonic existence certain parts may be hindered or arrested in their development, while others are not disturbed.

2. Ectopic viscera of the abdomen, spina bifida, cleft palate, hare-lip, webbed fingers and toes, etc., are only evidence of arrested development of embryonic, abdominal, spinal and maxillary processes, or, in case of the webbed extremities, the continuation of the embryonic hand or foot of the second month.

3. Any agency causing arrest of development of any portion of the fœtus must necessarily operate prior to the evolution of that part.

4. The cause of arrested development may be local or general; (a) injuries to the mother's abdomen; (b) diseases of the uterus or its membranes; (c) diseased ovum from diathesis of either parent; (d) hereditary transmission of deformity.

5. Excessive development of parts of the fœtus may obtain, resulting in nevi, aneurisms by anastomoses, supernumerary fingers, toes, etc.

6. Such peculiarities are, in common with family resemblances, frequently transmitted through generations.

7. Intra-uterine amputations are the result of amniotic bands, placental adhesions, fracture, or from pressure of a loop of the umbilical cord.

8. Amniotic bands or placental adhesions may result from inflammation of the uterus, its decidua, or inflammatory disease of the fœtus.

9. These false membranes may cause amputations of extremities, which may afterward be absorbed as may the false membranes.

10. The so-called double monsters, or fœtus *in fœtu*, are the result of double cicatricula on the blasto-dermic membrane of a single ovum.

11. Twins with a common chorion also result from the development of double cicatricula on the blasto-dermic membrane of a single ovum.

12. In either case there is always unity of sex.

13. The nearness of the primitive traces to each other, determines whether impregnation will result in separate twins or double monster.

14. In twins with single chorion or anastomosis of the placental vessels, one fœtus may become perfectly developed while the other may become monstrous.

15. The development of the abnormality in such cases depends on local anatomical causes, and is governed by definite laws.

16. Every known form of malformation in man has its analogue in the lower animals, birds, fishes and reptiles.

The author next puts the inquiry whether maternal mental impressions may arrest the development of the fœtus in utero and cause deformity; or cause disease in the uterus or membranes, resulting in false bands or placental adhesions; or cause the umbilical cord to encircle and amputate a limb, or cause the death of the fœtus; whether such impression can reach and act on the newly impregnated ovum, leading the double cicatrícula to approach each other so closely as to result in union and double monstrosity; or can destroy or deform one fœtus in utero, leaving another in the same membranes uninjured?

Many congenital deformities being shown to arise from causes unconnected with maternal influence, he asks, "Is it possible that at another time exactly the same deformity is produced by the maternal impressions?"

"When it is remembered that no nervous connection exists between the embryo and mother; that there is no direct blood communication; that the mother's mind can have no influence in causing the pathological states which have been shown to be the cause of malformation; that during the first weeks of foetal life the ovum is surrounded by anatomical conditions precluding maternal influences, whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema: when all these facts are remembered it cannot," he says, "be believed that the mother's mind can change the conformation of the fœtus *in utero*."

5. *Epileptic Phenomena in a Case of Cerebral Tumor.* DEBONIS. (*Monthly Abst.*, Oct., 1876.)

In an article on the *Annali Clinici dello Ospedale Incurabili di Napoli*, anno i. fasc. 2, Dr. DeB. reviews the recent doctrines regarding epilepsy, and accepts vascular spasm as an explanation; in short, he recognizes epilepsy as a vaso-motor necrosis of the brain. He relates the case of a man, aged sixty, who first suffered severe pains in the frontal and parietal regions, extending to the occiput; the pain was intermittent. Convulsions afterwards appeared; they were preceded by noises in the ears and vertigo, and were repeated several times a day. When young he had had gonorrhœa, soft ulcers, and syphilides. From the anamnesis and the symptoms observed during the attack, the diagnosis was made of epilepsy with chronic meningitis from cerebral syphilis, probably with gummata disseminated in the anterior and middle lobes of the right hemisphere, and encephalitis affecting the origin of the seventh pair. Most of the symptoms—paleness, dilatation of the pupils, clonic convulsions, etc.—were principally manifested on the right side. At the necropsy, there were

found congestion of the membranes of the brain, chronic meningitis, and seven gummatous masses in the cortical substance toward the upper part and the base of the cerebral lobes, some being of old, others of recent formation. There was no appreciable lesion of the medulla oblongata, pons Varolii, cerebral peduncles, hippocampus, etc.

Dr. DeB. remarks that this case shows that from the cerebral mass there may arise irritations, which are directed along the converging fibres to the medulla oblongata and peduncles, determining a super-excitation of the vaso-motor centres, whence arises spastic contraction of the vessels, as shown by the pallidity of face and loss of consciousness. He thus explains the convulsions by spastic ischæmia of the nervous centers.—*Lond. Med. Record*, Aug. 15, 1876.

6. *The Diagnosis of Auditory Vertigo.* GOWERS. (*Monthly Abstract*, Oct., 1876.)

Dr. G. read a paper on this subject before the Section on Medicine, British Medical Association. He said the form of vertigo which depends on an affection of the organ of hearing has very little apparent connection with its cause, and frequently has so obtrusive an association with the gastric functions that the real nature of these cases is constantly misconceived by the sufferers, and frequently by our own profession. There are several ways in which the stomach symptoms obscure the real nature of the affection. The paroxysms of vertigo commonly lead to vomiting. Sometimes they cause only an attack of dyspepsia, to which the giddiness is thought to be due. But, further, so intimate are the mutual action and reaction of the pneumogastric and equilibrium nerves and centers, that in the subjects of "auditory vertigo" a paroxysm, quite special in form, may be excited by a primary gastric disturbance, to which the whole trouble is naturally ascribed. The subjects of auditory vertigo, besides their acute paroxysms, are usually liable to slighter but more continuous sense of disturbed equilibrium, taking the form not of a definite movement, but merely of vague instability, and this is in constant relation to the gastric function. The slightest stomach disturbance at once excites the feeling, and careful dietetic management is necessary to keep the patient free from it. Among the points to be especially attended to in diagnosing auditory from pure gastric vertigo are the following: The occurrence of intense paroxysms of vertigo, especially if repeated, is in favor of their labyrinthine origin. In many forms of vertigo, paroxysms occur, but in none so intense as in this form. The character of the sensation is of great significance. When purely gastric, it is usually indefinite; and labyrinthine vertigo is usually definite. There is a sense of movement in a certain direction, usually uniform. Often there is actual movement. Lastly, evidence is usually to be obtained of affection of the auditory nerve or apparatus—unilateral, or greater on one side than on the other—tinnitus and deafness. The deafness may be due to atmospheric vibrations, or to those conducted through the skull. The latter, a well known symptom of labyrinthine disease, is of great service in the diag-

nosis of auditory vertigo. Two illustrative cases were narrated. In the first, characteristic auditory vertigo co-existed with some other affection of cranial nerves, interference with smell and taste, etc. The patient suffered also from chronic ulcer of the stomach, and the gastric disturbance excited paroxysms of vertigo. The patient always fell to the right and backwards, and the right ear alone presented perverted function. Although the special gastric association in this case was accidental, the confusion in diagnosis to which it gave rise was typical, and was only cleared by careful investigation of the form of the vertigo. In the second case, a gentleman aged thirty-five, suffered from slight dizziness, with dyspeptic symptoms, to which he ascribed it. On examination, however, there was clear evidence of labyrinthine mischief, and a history of paroxysms of vertigo most characteristic in form. In these he fell to the right, the auditory affection being on the left side. He fell with such violence as to knock down a friend who was on his right side. In other attacks objects seemed to move from the right, although he did not fall. One severe paroxysm was excited by a hearty meal after long fasting. The paper concluded with some remarks on the diagnosis of the severer paroxysms from slight apoplectic seizures and from attacks of *petit mal*.—*British Med. Journal*, Aug. 26, 1876.

7. *The Nursing and Weaning of Infants and Young Animals.* MAGNE. (*L'Union Méd.*, No. 118.)

The difference between the nursing of the young of human beings and other animals is neither explicable by their organization nor conformable to the laws of physiology. Why, for example, is an artificial diet generally considered so injurious to infants, when it is so successful in young animals; and why do alimentary substances, when substituted for or added to milk, prove injurious to the former and useful to the latter?

The writer believes it to be irrational to give an infant breast milk exclusively till it is one year old, and afterward to administer to it pap containing bread, rice, milk, etc. These latter are eminently unfit to be substitutes for milk, and yet milk itself is insufficient as a sole aliment for children who have passed the sixth, seventh, eighth and tenth month. These statements are based upon the ascertained inefficacy of those articles of food in supplying the material for tissue waste, and in repairing the losses which the organism is liable to suffer.

The needs of the infant increase with its age. As its skeleton becomes longer and its muscles more voluminous, it requires more phosphates and albuminoid matters than during the first months of life. Now, the mother's milk cannot, for twelve months, augment in the same proportion as the requirements and according to the needs of her nursling. The writer has, on several occasions, recommended for children eleven and twelve months of age, of fair constitution, but who were yet unable to walk, the eating of raw eggs. One or two of these, daily, sufficed to produce a clear color of the skin, firm flesh and the ability to walk unaided.

Those who busy themselves with the rearing of the young of animals

have brought about successive and considerable modifications in their system, and have decided that incomparably the best results are obtained by early weaning. Without an artificial diet, commenced almost immediately after birth, the public would never see at the Expositions immense bulls with cylindrical bodies and thick muscles, and powerful draught horses which gain the prizes. The more intelligent of stock raisers employ a nutritious substance whose composition is nearly that of milk, but which is much more preferable because it is less watery and more substantial.

The more complicated the composition of one of these milk substitutes the more it is nutritious. Products which naturally serve as nourishment are thought to be much more available by extracting their essence, by disengaging their alimentary part. This is an error.

* Meat is too systematically excluded from the dietary of the nursery. Man is carnivorous in infancy as in adult life. The extract and juice of meat cannot take the place of meat itself for the child. Among available articles mentioned are, eggs, raw and cooked; meat, and the flour of various vegetable productions.

† The discussion of this paper evoked great opposition among the members of the Academy of Medicine.

III. SURGERY.

1. *Traumatic Tetanus cured by Nerve-stretching.* VOGT. (*Centralbl. f. Chir.*, No. 40, 1876.)

Since the publication of Prof. Nussbaum's famous case of neuralgia cured by stretching the cervical plexus, the operation of nerve-stretching has been repeatedly performed by Nussbaum, Billroth, Callender, Vogt, and others. The operation was applied for the cure of neuralgia, clonic spasms and various other nervous affections. It always had the desired effect, and proved to be free from danger. These good results surely warranted the experiment of the operation in the following case: On August 23, a stone mason, aged sixty-three years, had his right hand wounded by a heavy stone. The large flap wound of the palm of the hand kindly healed under antiseptic dressings, while the smaller wound of the back of the hand very slowly healed by granulations. On September 7, the attending physician found the first evidence of trismus, and two days later tetanus supervened. On September 16, Prof. Vogt found the patient suffering from a continuous lock-jaw, and he was frequently seized with violent attacks of opisthotonos and clonic spasms, while the lower extremities were excessively rigid. Neither the recent thick cicatrix in the palm of the right hand, nor the surroundings of the well granulating wound at the back of the hand, showed any tenderness on pressure. No painful spots existed in the course of the nerves of the forearm or arm; but the region of the brachial plexus

was so sensitive that the slightest touch produced convulsions. The patient, in spite of all treatment, had been daily growing worse; therefore the professor at once resorted to the traction upon the brachial plexus. First, however, the palmar cicatrix was cut into and freed from the aponeurosis and the tendons; a foreign body was not found. On the right side of the neck, then, a longitudinal incision was made, parallel to the anterior border of the trapezius muscle, and in the triangular space between the trapezius, omohyoid and scalenus muscles, the brachial plexus was exposed. The sheath of the nerves being severed, a blunt hook was passed under the nerves to lift them out of their surroundings. The flexed forefinger could there be substituted for the hook, and make energetic tractions on the central as well as the peripheric portions of the nerves. The sheath of the nerves, looking exceedingly hyperæmic, was split up as far as the intervertebral foramina. A drainage tube was put in, and the wound was dressed antiseptically. No sooner had the patient recovered from the narcosis than he could open his mouth sufficiently to put out his tongue and to take some fluid nourishment. The tetanic rigidity and spasms of the muscles had entirely disappeared and did not return, a few slight momentary twitchings in the neck and back excepted, which occurred on the patient's first sitting up in a chair. The patient felt exceedingly weak, and slept very much during the day, while at night morphia had to be administered for restlessness. No other medicine was used. And now, ten days after the operation, the wounds are nearly healed, and the patient can, *ad libitum*, stand and sit and walk; nor does he experience any disturbance of sensibility or motility in his right arm.

2. *Resection of the Superior Maxilla with Preservation of the Infra-orbital Nerve.* LETIEVANT. (*Archives Générales de Méd.*, Oct., 1876.)

The author recalls the idea expressed by Longet and other physiologists, that the sensitive filaments of nerves exercise a nutritive influence upon muscular fiber. The results of the operation of ablation of the superior maxilla, with preservation and destruction of the infra-orbital nerve, are compared:

1. Destruction of nerve. The results were simple, with the exception of a slight attack of intercurrent erysipelas. The patient left the hospital affected with slight œdema of the cheek, and preserving cutaneous sensibility. Eight months afterward the mobility of the upper lip was slight, and the patient could not puff both cheeks without the escape of air. Electrization of muscles through the skin did not secure contraction; and when the needles were implanted in the muscles there was no greater effect.

2. Preservation of nerve. This is readily accomplished, and does not add much to the time of duration of the operation, if the entire nerve is laid bare and elevated; the suborbital tissue is left attached to the deep portion of the zygoma. Thirteen months after the operation all the facial muscles contracted; sensibility, as determined by the æsthesiometer, was absolutely alike on both sides; pressure only did not produce the same sensation as before, in consequence of destruction of the anterior dental

filaments. The restoration of the face was remarkable, thanks to the osseous tripod left by the surgeon; cicatrization had not deformed the visage; and, more, an inodular mass filled the hiatus left by the maxillary line.

3. *Treatment of Tracheal and Laryngeal Stenosis by Dilatation.* THIAOU. (*Le Progrès Méd.*, No. 38.)

Syphilis, small-pox and typhoid fever, from their tracheal and laryngeal localizations, are the most frequent causes of contractions of the aërial conduit, and in these stenosis is most surely caused by submucous lesions. Perichondritis is almost invariably observed, and in its train occur necrosis of bone and ankylosis of the small articulations. It develops an exudation which leads to prominence of the mucous membrane, ulceration or fibrous transformation, compressed and therefore inactive muscles, which undergo fatty degeneration. These processes are hardly evident to the laryngoscope. Sometimes the epiglottis is destroyed and falls upon the glottis, where, becoming adherent, it remains fixed in a vicious position,

It must be elevated with a curved sound in order to uncover the completely obstructed glottis. It is surprising that respiration should be possible through such a tortuous and occluded canal. Sometimes the tube is closed by a true diaphragm, more or less excentrically perforated, and composed of a whitish cicatricial membrane.

The symptoms are referable to a distant date, when there was hoarseness, dyspnœa, and a sense of suffocation. Then tracheotomy does not cure; it saves life, but leaves behind the stricture which pre-existed, and a true fistule of a dangerous character. Existence at such a price is dear.

Before the tracheal tube can be removed, the natural passage-way of the air must be restored. Liston (1827), Czermak (1851), Gúérin, Richet, Busch, Brake, Gurlt, Bruns, Dolbeau, Gerhardt, Treudenburg, operated by instruments passed upward through the artificial opening.

The direct method (by the mouth) has been tried by only Roux, Desprès, Thiersch and Navratil — always without success.

After two months' trial with the method of Schrötter, the author is disposed to recommend it highly. The former operates by the superior or natural passage, but the method of operating and the form of his instruments vary according to whether there (*a*) is or (*b*) is not a surgical opening in the neck.

(*a*) In this case the tracheal fistula is utilized only for the purpose of fixing in the larynx a dilating prism, introduced through the mouth. The prisms are zinc, triangular in shape, with rounded borders, and resemble in form the glottis. Inferiorly they present a small narrowed neck, surmounted by an equally small rounded head. The prism descends into the air passage and becomes engaged in the opened tracheal cannula, toward its dome. A pair of slender forceps, capable of continuous pressure, is introduced through the neck, seizes the prism at its constricted part, and holds it in place. At its upper extremity the prism is provided with a stout thread. At the time of introduction this thread is made to pass through a long curved tube, when it is firmly fastened by a knot to the handle by

which the tube is carried. Thus constituted, the apparatus represents an uninterrupted instrument, composed of a curved branch (the tube) and a terminal enlargement (the prism). By the aid of the laryngeal mirror, it is engaged in the larynx and fixed below by the tracheal forceps. The knot is then unfastened; the tube, which is no longer retained by the prism, is withdrawn; and the thread, which remains attached to the prism, is brought out of the mouth and attached to the ear. The patient or physician has but to draw upon the thread and open the forceps in order to extract the prism from the larynx.

Some education of the parts is requisite before proceeding to the dilatation, which is accomplished by the successive introduction of a series of prisms, numbered from one to twenty-four—the smallest being eight millimeters in one measurement and six in the other, the largest being twenty by sixteen. All are four centimeters long. The duration of the dilatation is from a few minutes at the outset to the entire night, the patient being finally able to sleep with the instrument *in situ*, because accustomed to its presence. The results are satisfactory to a surprising degree. Soon the knife or galvano-cauter may be used to divide a bridle, or various caustic applications may be made to localized swollen tissue. Sometimes the voice returns, or the patient can breathe and talk with the cannula closed. Insucess is due generally to obstructions lower down. Of course more recent cases afford the best results.

(b) In non-tracheotomized subjects the sounds are adapted to the different conditions, and the patients learn to use them themselves. The base of the tongue is depressed with the finger, and the instrument made to penetrate the larynx without hesitation. Schrötter employs also rubber sounds, somewhat longer than those described above, with a triangular laryngeal extremity and rounded borders. Lateral openings are made for the exit of mucous secretions. There is also an oval shield of hard rubber, so arranged that the expectorated secretions are directed to the floor, and not in the face of the operator. Often a previous incision of the obturator membrane by the knife or cauter is requisite before the introduction of the sound.

4. *Diseases of the Nose treated by Medicated Bougies.* CATTI. (*Memorabilien*, 1876, No. 9.)

At a meeting of the Vienna Medical Society, Catti showed some gelatine bougies charged with astringent medicines—as sulphate of copper, zinc, carbolic acid, tincture of rhatanny. They are from eight to eleven centimeters long, and from four to six centimeters thick. By a slow rotatory motion they are introduced into the nasal cavity, and by giving them a horizontal or slanting or perpendicular direction they can be inserted into the lower or middle nasal passage. The bougie inserted, the nostril is plucked with charpie or cotton, and in a few hours it will be entirely melted. By a regular continued use of such bougies Catti obtained very good results in the treatment of chronic catarrh of the nose and nasopharyngeal space and of the ozæna.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, Dec. 4 and 18.—Chicago Medical Society. Regular meetings.

Mondays, Dec. 11 and 25.—Chicago Soc. of Phys. and Surgeons. Regular meetings.

CLINICS. Every Monday.

At Eye and Ear Infirmary, 2 P. M.—Prof. Holmes.

At Central Dispensary (Wood and Harrison sts.). 2 P. M., *Gynecological*—Dr. Adolphus.

At Mercy Hospital—2 P. M., *Surgical*, Prof. Andrews.

At Rush College—2½ P. M., *Medical*, Dr. Bridge.

At Chicago College, 2 P. M. *Gynecological*—Prof. Merriman.

LECTURES. Every Monday.

At Rush Medical College (Harrison and Wood sts.)—9½ to 12½ o'clock, Profs. Freer, Lyman and Powell; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Hyde, Hatfield and Bond; 3 to 6, Profs. Nelson and Davis, Quine and Andrews, and Roler. At Woman's College—8½ to 11½, Profs. Hotz, Marguerat and Earle; 3 to 5, Profs. Paoli and Stevenson.

TUESDAYS. SOCIETIES.

Tuesday, Dec. 12.—Academy of Science. Regular meeting at 8 P. M. (263 Wabash av.)

CLINICS. Every Tuesday.

At Eye and Ear Infirmary—2 P. M., Prof. Jones.

At County Hospital—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Surgical*, Prof. Powell.

At Mercy Hospital—2 P. M., *Medical*, Prof. Hollister.

At Chicago College—2 P. M., *Gynecological*, Prof. Roler.

At Central Dispensary—2, *Surgical*, Dr. Graham.

LECTURES. Every Tuesday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Haines. At Chicago College—8½ to 12½, Profs. Jewell, Quine, Merriman and Bond; 3 to 6, Profs. Johnson and Nelson, Andrews and Hatfield, and Byford. At Woman's College—9 to 12, Profs. Bartlett, Bogue and Fitch; 3 and 5, Profs. Thompson and Macdonald.

WEDNESDAYS. CLINICS. Every Wednesday.

At Eye and Ear Infirmary—2 P. M., Prof. Holmes.

At County Hospital—2 P. M., *Gynecological*, Prof. Fitch; 2 P. M., *Ophthalmological*, Dr. Montgomery.

At Chicago College—2 P. M., *Gynecological*, Prof. Nelson.

At Mercy Hospital—2 P. M., *Ophthalmological*, Prof. Jones.

At Central Dispensary—3 P. M., *Dermatological*, Dr. Maynard.

LECTURES. Every Wednesday.

At Rush College—9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Etheridge and Haines. At Chicago College—8½ to 12½, Profs. Hyde, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Curtis, Quine and Jones, and Roler. At Woman's College—9 to 12, Profs. Marguerat, Curtis and Blake; 3 to 6, Paoli, Graham and Stevenson.

THURSDAYS. CLINICS. Every Thursday.

At Eye and Ear Infirmary—2 P. M., Prof. Hotz.

At Mercy Hospital—2 P. M., *Medical*, Prof. Davis.

At Rush College—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Diseases of the Nervous System*, Prof. Lyman.

At Chicago College—2 P. M., *Gynecological*, Prof. Merriman.

At Central Dispensary—2 P. M., *Surgical*, Dr. Graham.

LECTURES. Every Thursday.

At Rush College—9½ to 12½, Profs. Miller, Allen and Parkes; 4 to 6, Profs. Gunn and Etheridge. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Merriman and Bond; 3 to 6, Profs. Johnson and Nelson, Andrews and Hatfield, and Byford. At Woman's College—9 to 12, Profs. Dyas, Bogue and Fitch; 5, Prof. Macdonald.

FRIDAYS. SOCIETIES.

Friday, Dec. 8.—State Microscopical Society of Illinois. Regular meeting, 8 P. M.

CLINICS. Every Friday.

At County Hospital—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Surgical*, Prof. Powell.

At Mercy Hospital—2 P. M., *Medical*, Prof. Davis.

At Chicago College—2 P. M., *Gynecological*, Prof. Roler.

At Central Dispensary—2 P. M., *Gynecological*, Dr. Adolphus.

LECTURES. Every Friday.

At Rush College—9½ to 12½, Profs. Freer, Allen and Parkes; 4 to 6, Profs. Gunn and Holmes. At Chicago College—8½ to 12½, Profs. Hollister, Isham, Hatfield and Bond; 3 to 6, Profs. Davis and Curtis, Jones and Quine, and Roler. At Woman's College—9 to 12, Profs. Bartlett, Marguerat and Curtis; 5, Prof. Stevenson.

SATURDAYS. CLINICS. Every Saturday.

At Chicago College—2 P. M., *Surgical*, Prof. Andrews or Isham; *Gynecological*, Prof. Nelson; 3 P. M., *Medical*, Prof. Johnson.

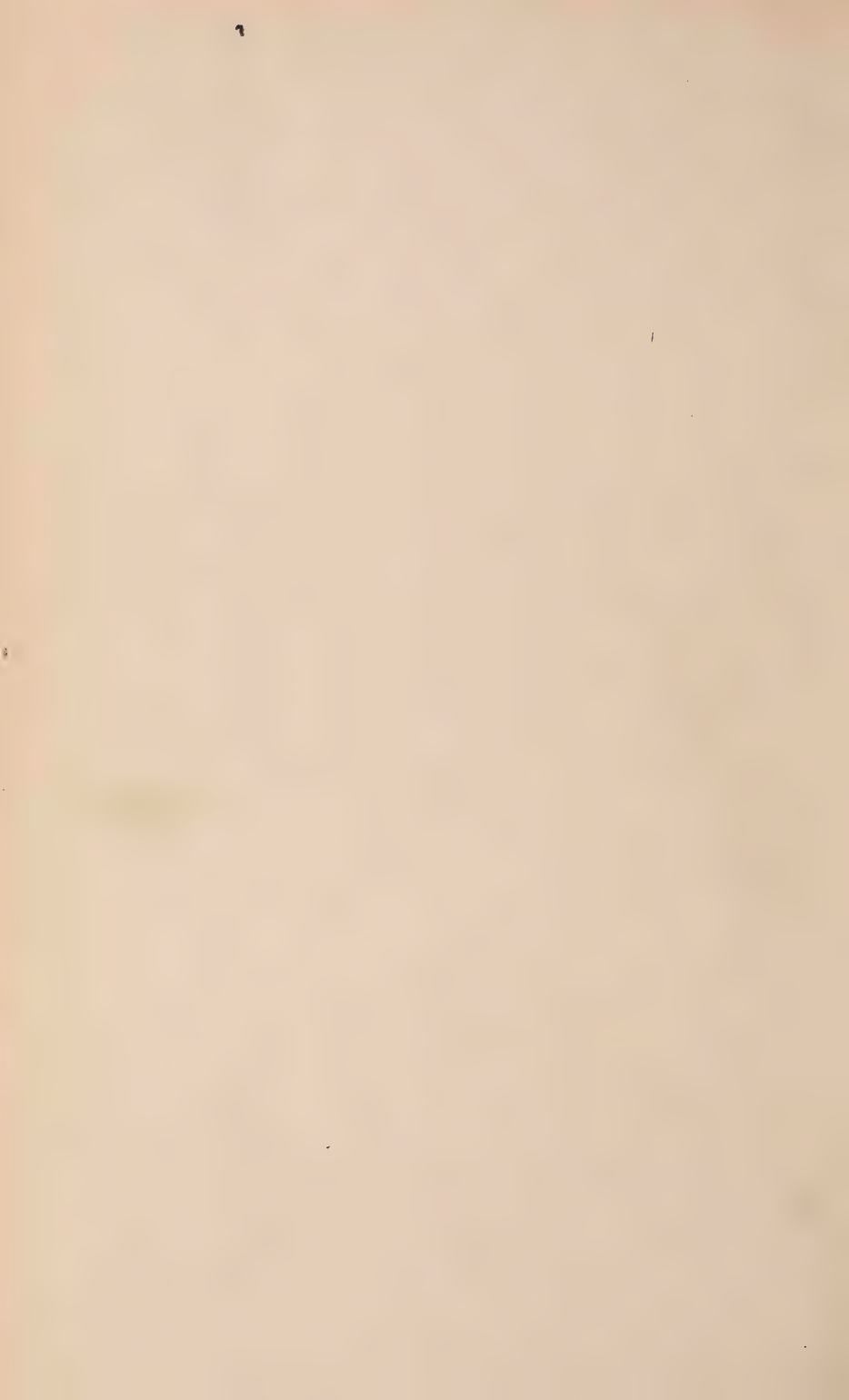
At Rush College—2 P. M., *Surgical*, Prof. Gunn.

LECTURES. Every Saturday.

At Rush College—8½ to 12½, Profs. Lyman, Miller, Etheridge and Parks. At Chicago College, 8½ to 11½, Profs. Hollister, Quine and Hyde; 3 to 6, Profs. Nelson and Johnson, Andrews and Quine and Byford. At Woman's College—9 to 11, Profs. Earle and Fitch; 3 and 5, Profs. Paoli and Macdonald.

At all the above named Clinics visiting regular practitioners are, we believe, admitted.

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